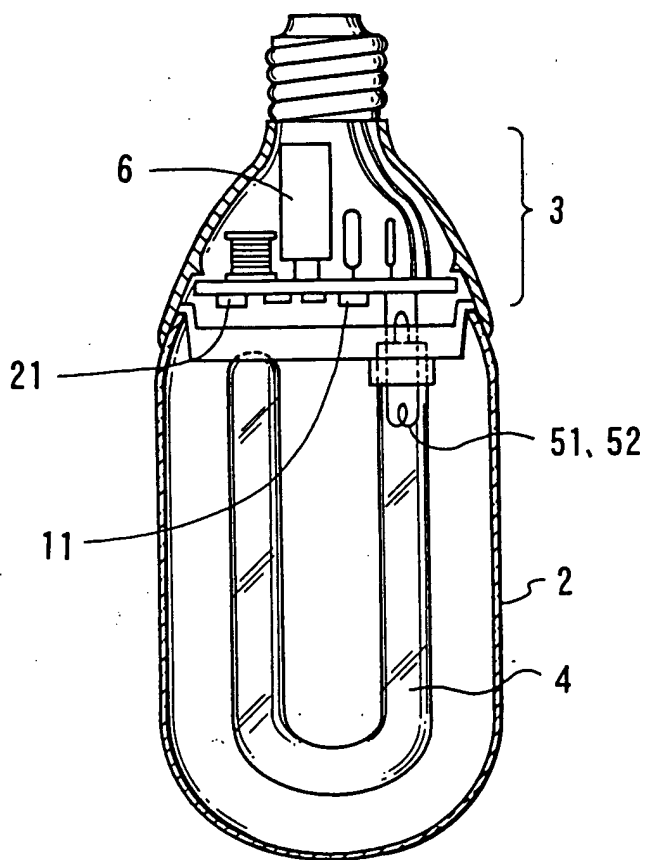


APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

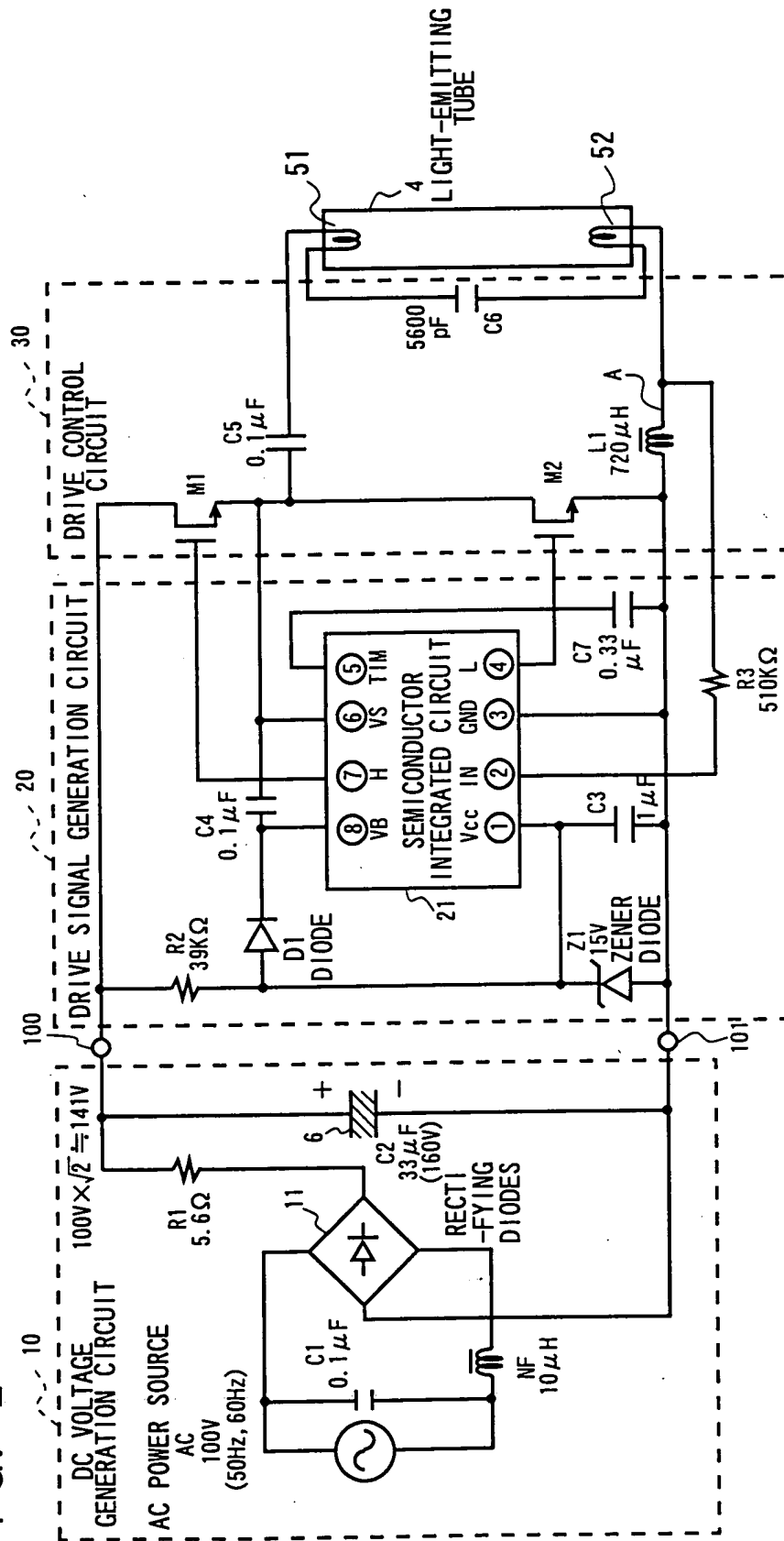
9/454135

FIG. 1

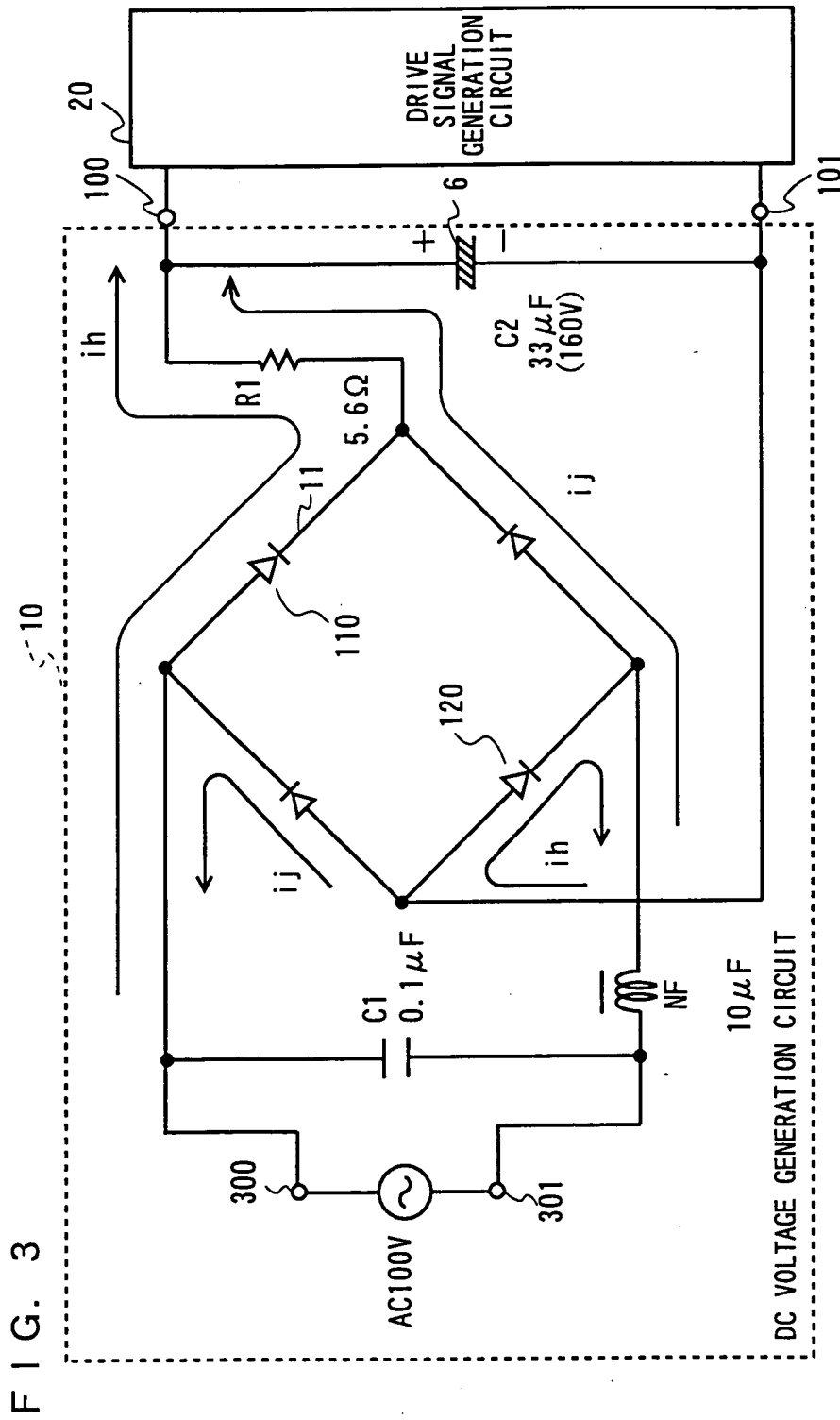


APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 2

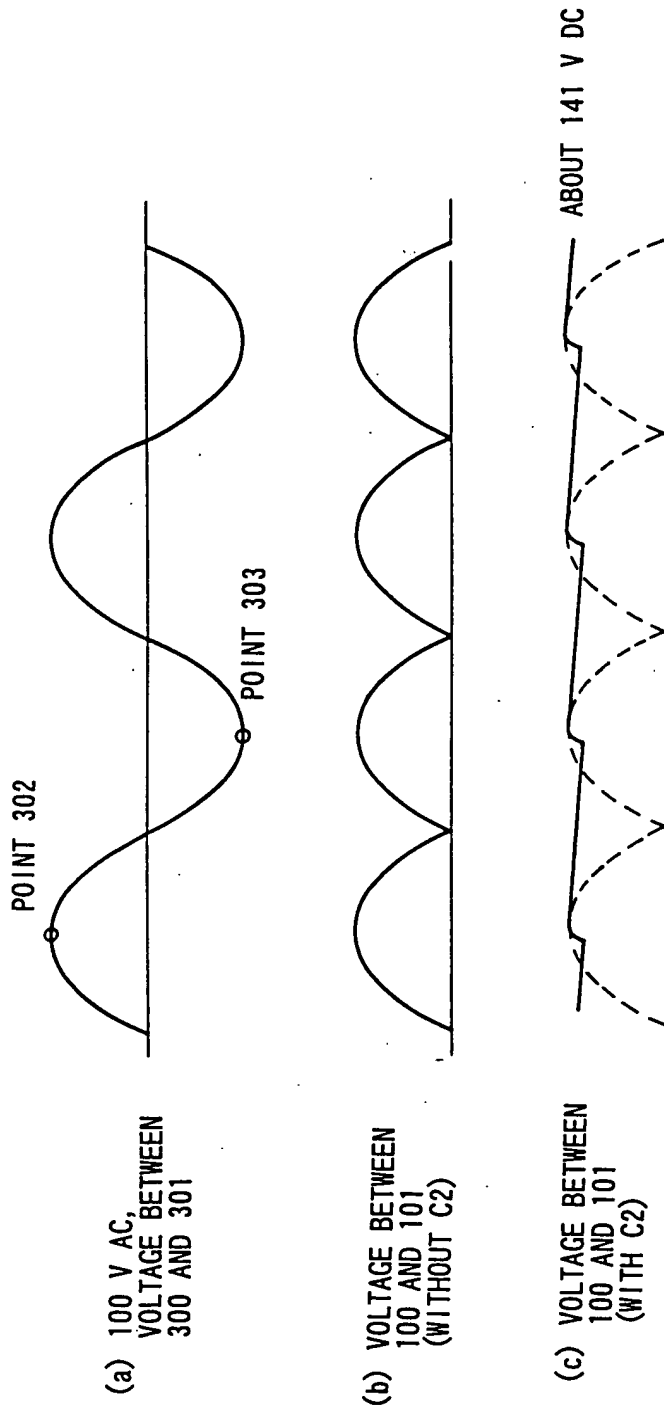


APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		



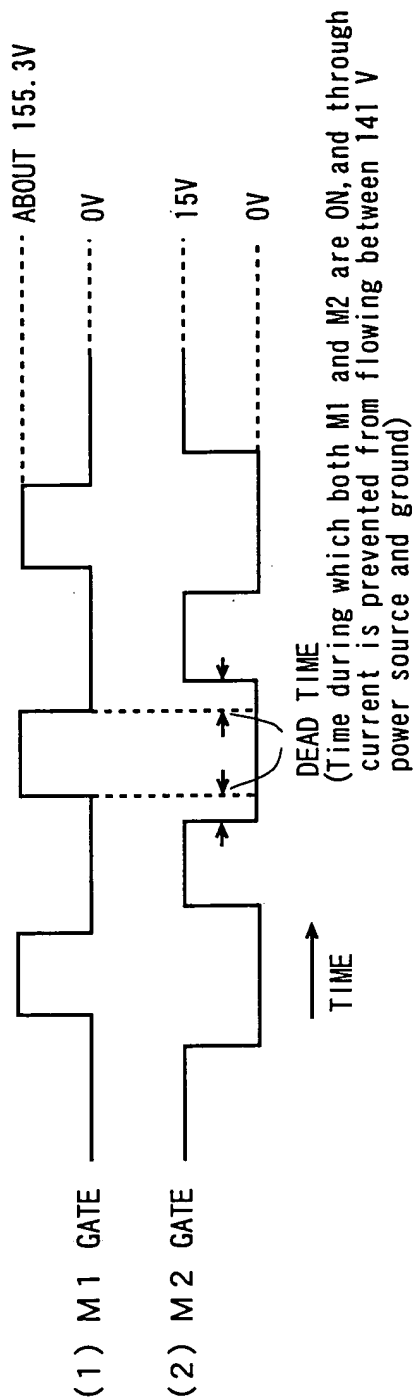
APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 4



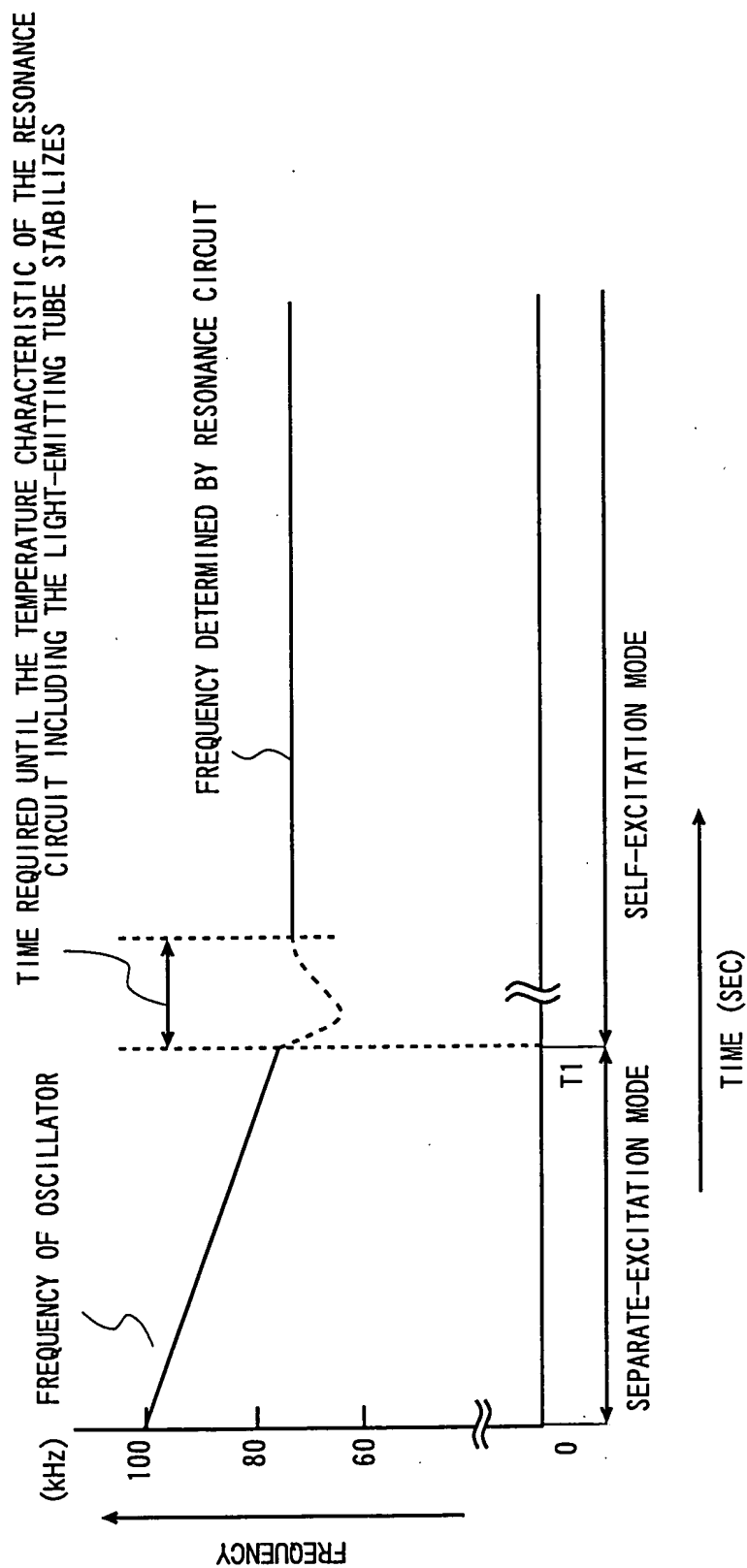
APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 5



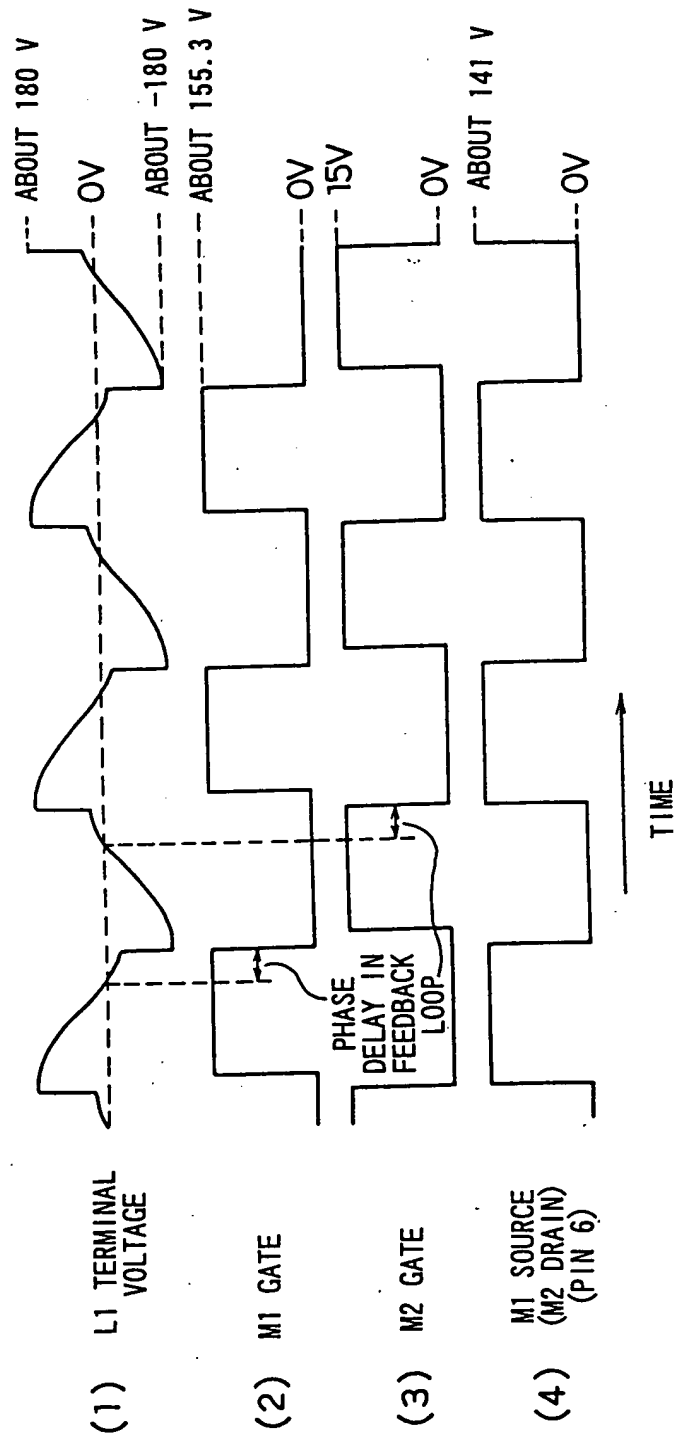
APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 6



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

FIG. 7



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

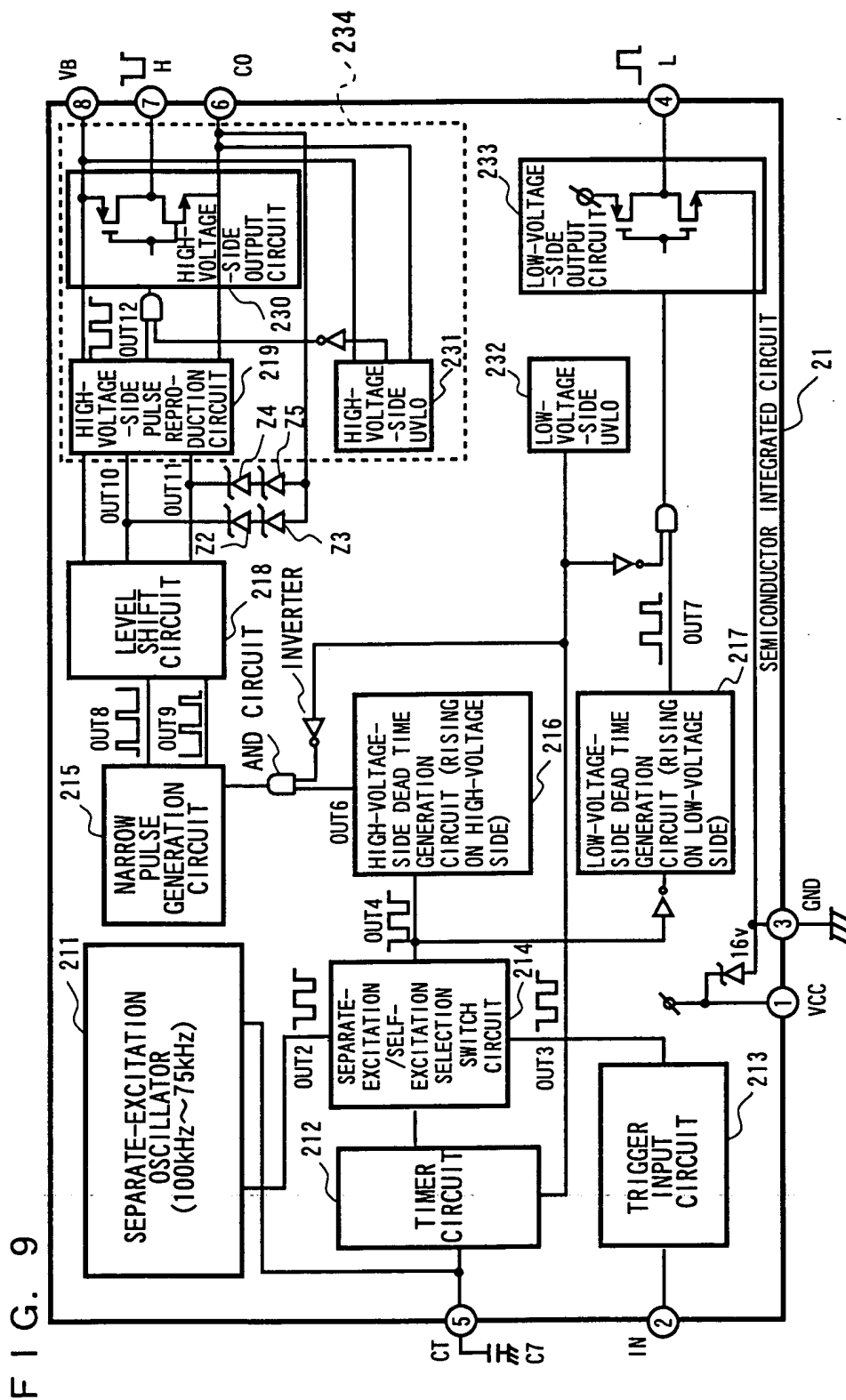


FIG. 8

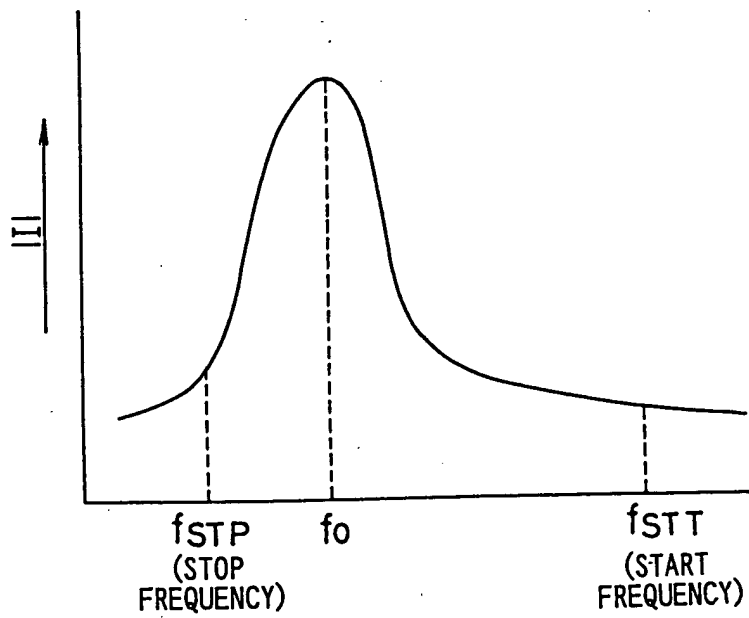


FIG. 10

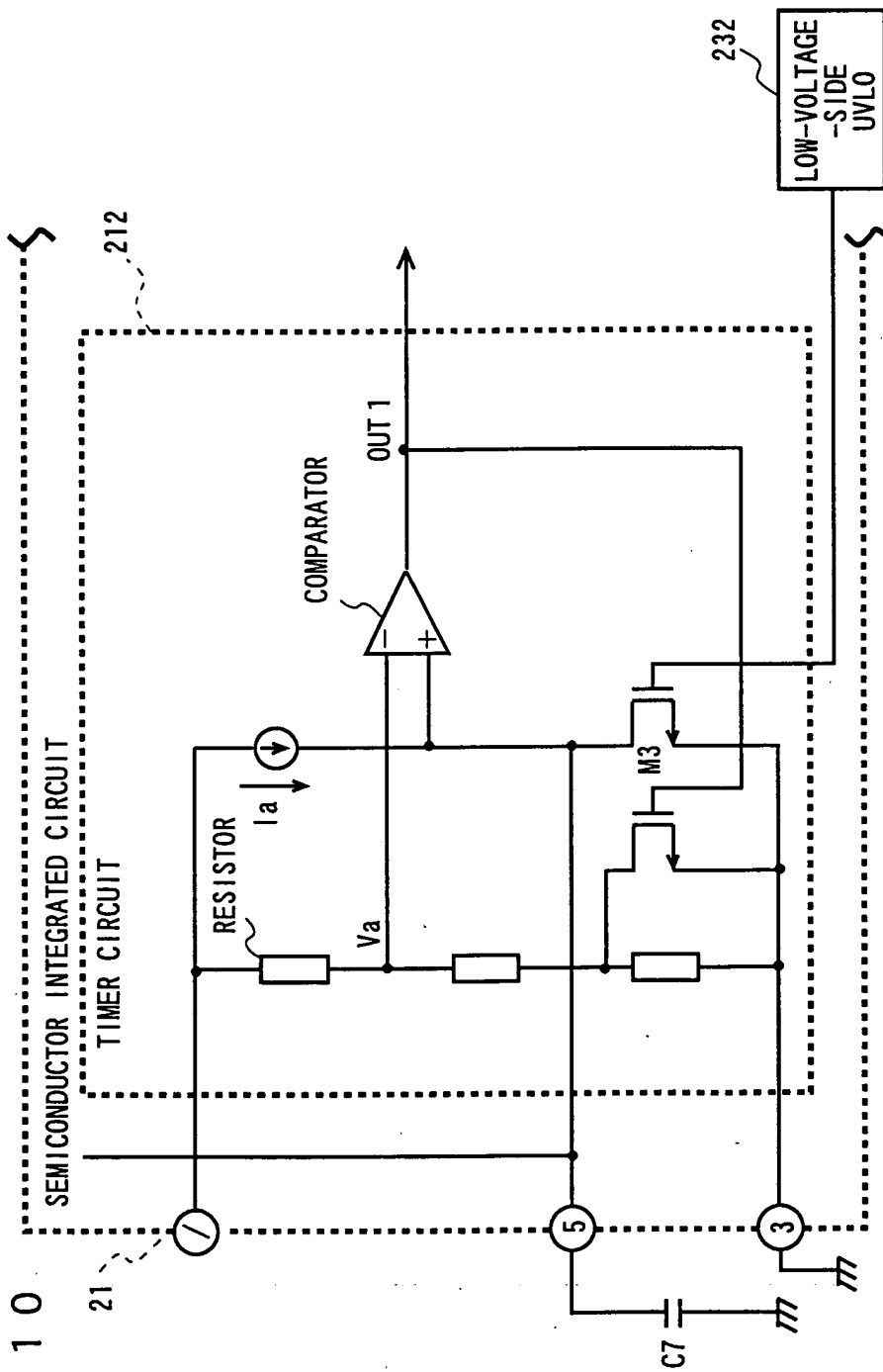
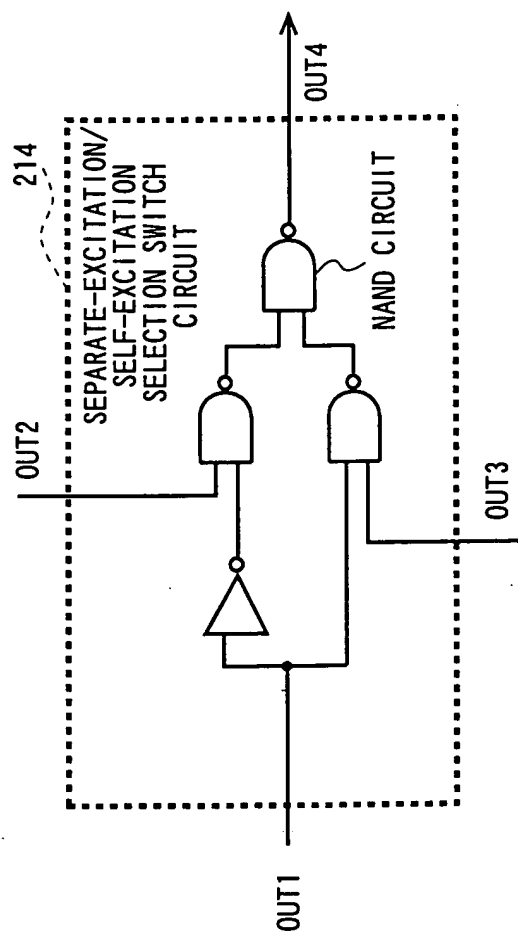


FIG. 11



SEPARATE-EXCITATION OSCILLATOR (100 KHZ \sim 75 KHZ)

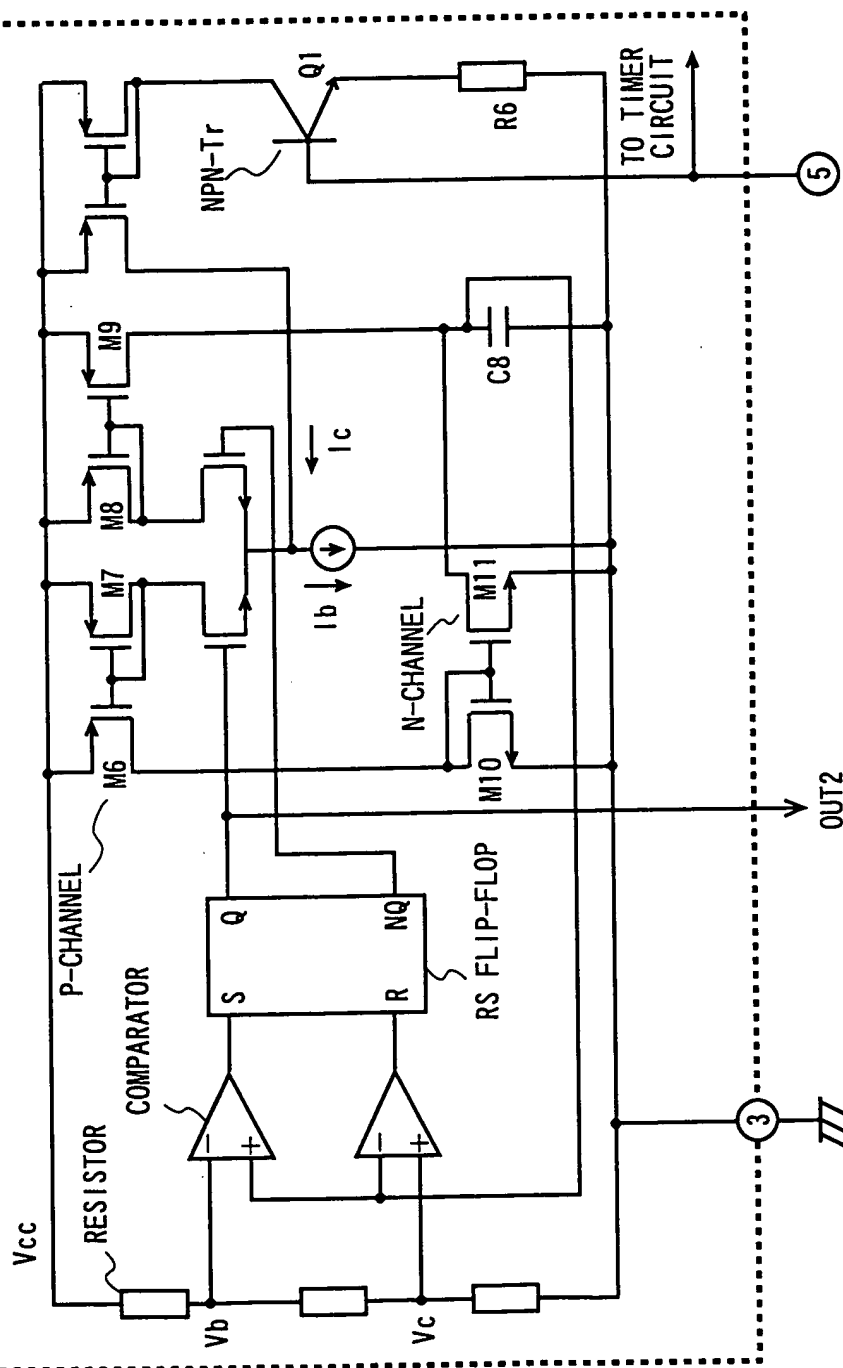


FIG. 13

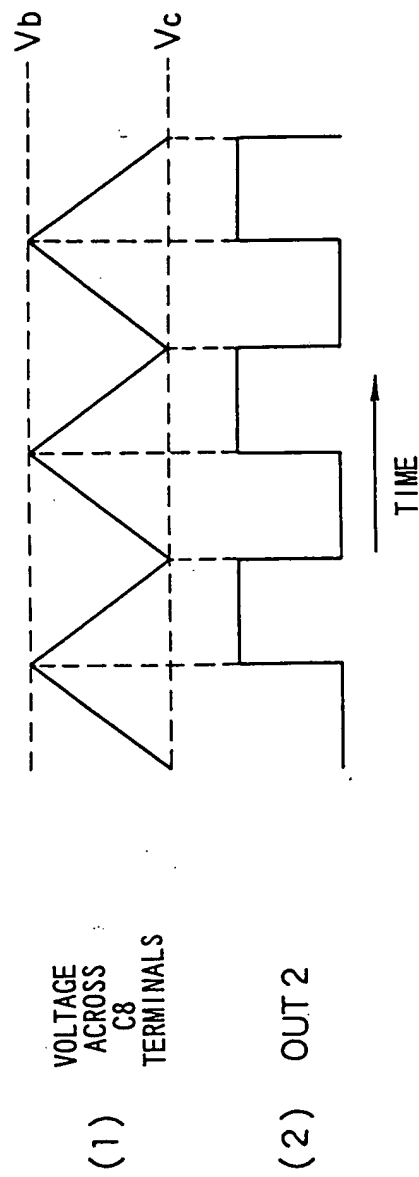


FIG. 14

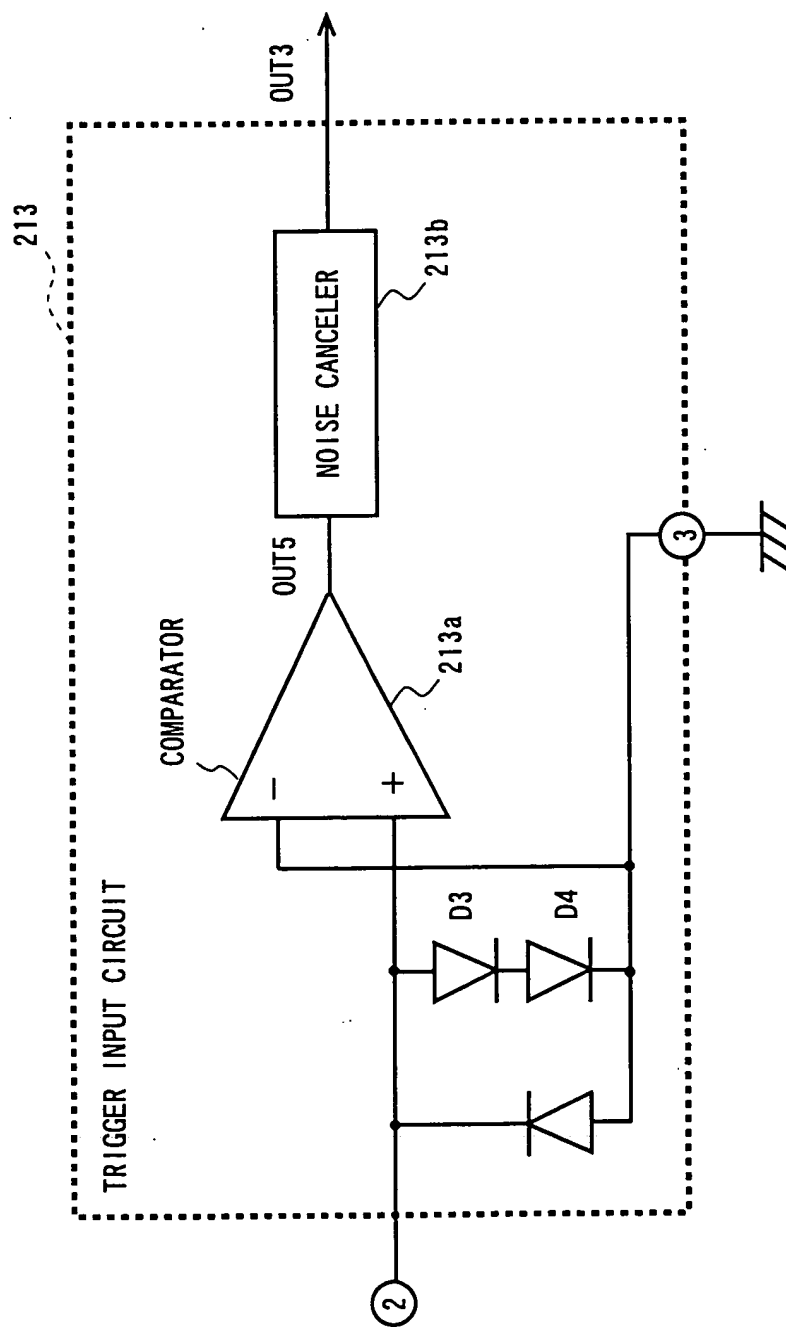


FIG. 15

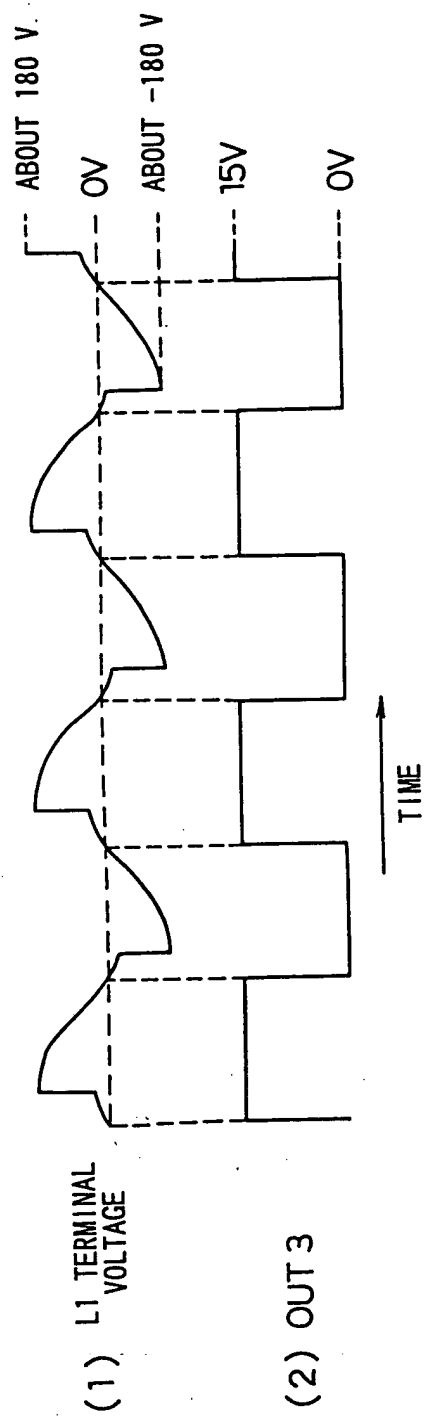


FIG. 16

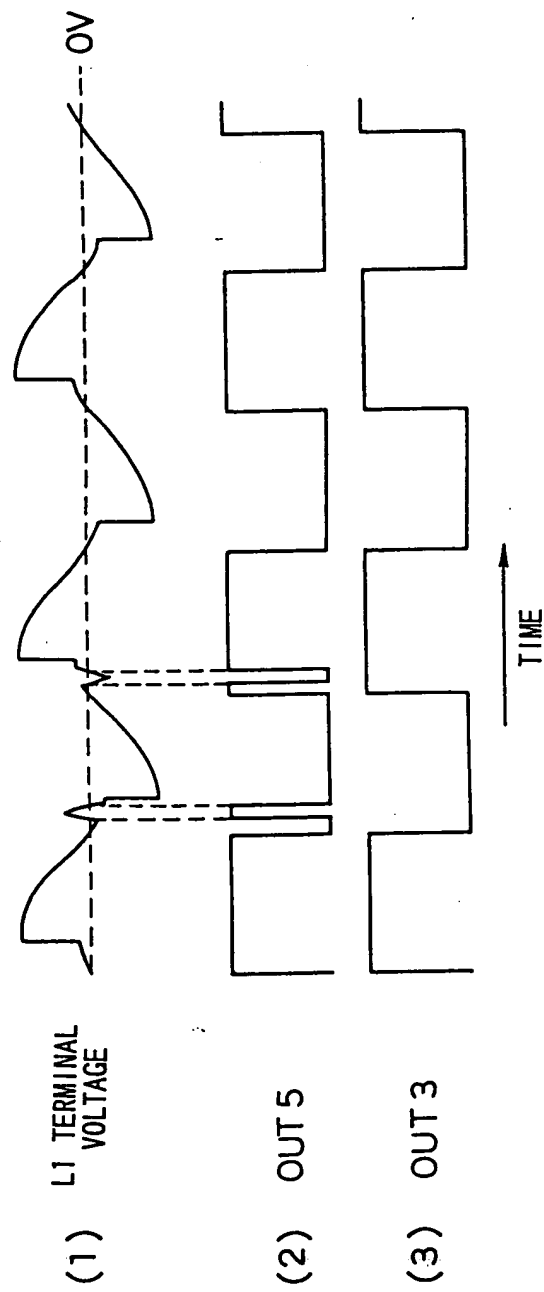


FIG. 17

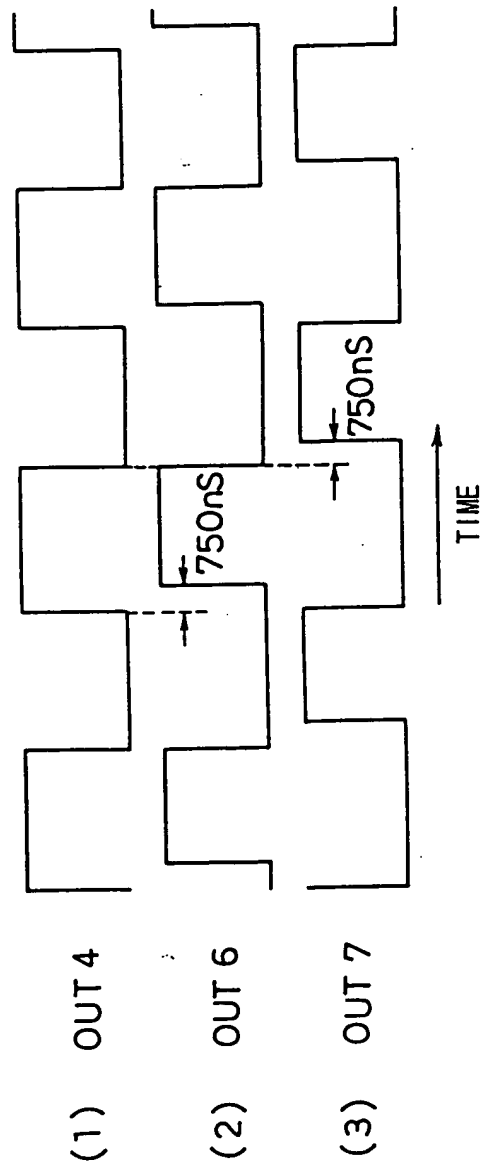


FIG. 18

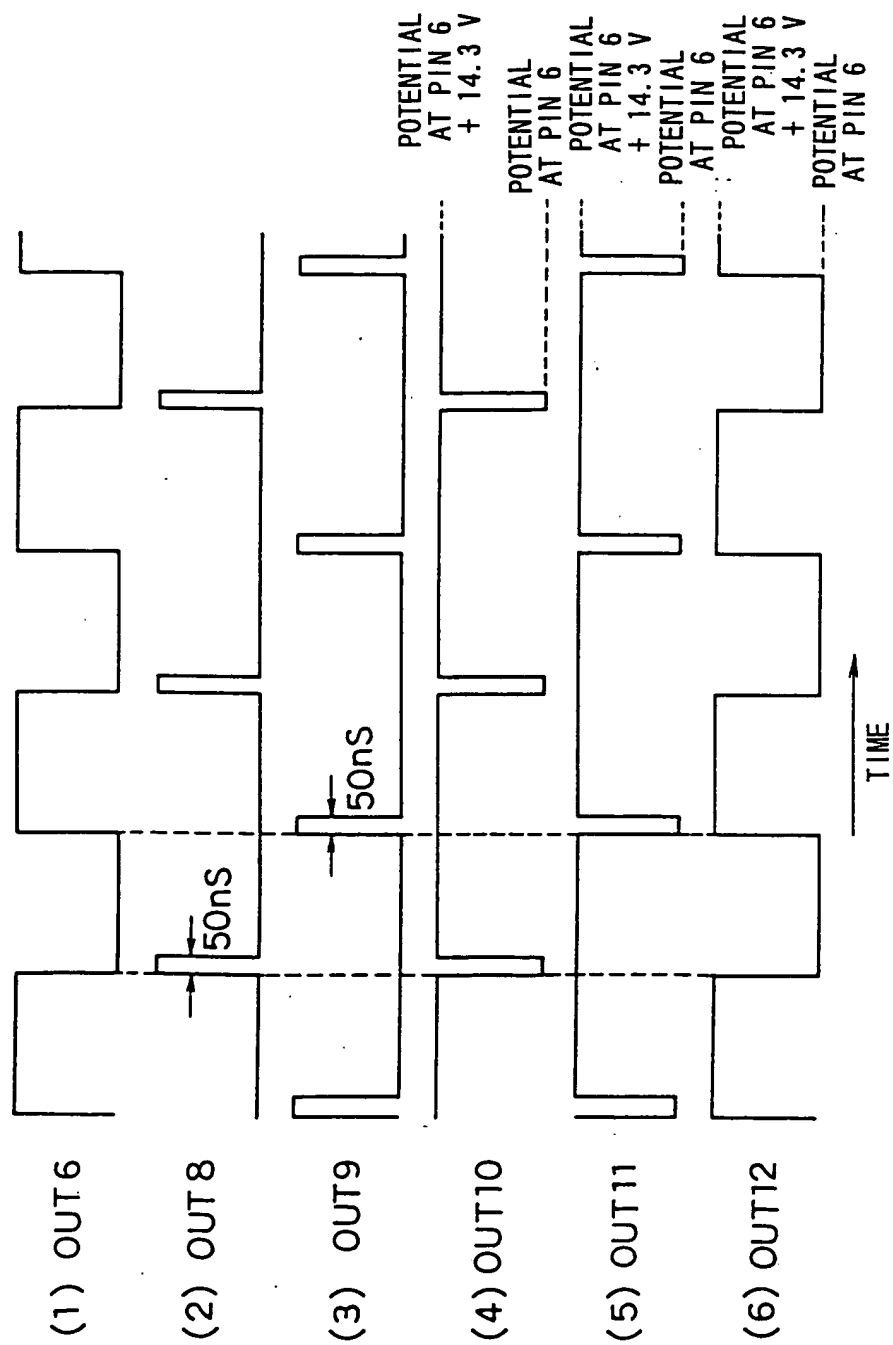


FIG. 19

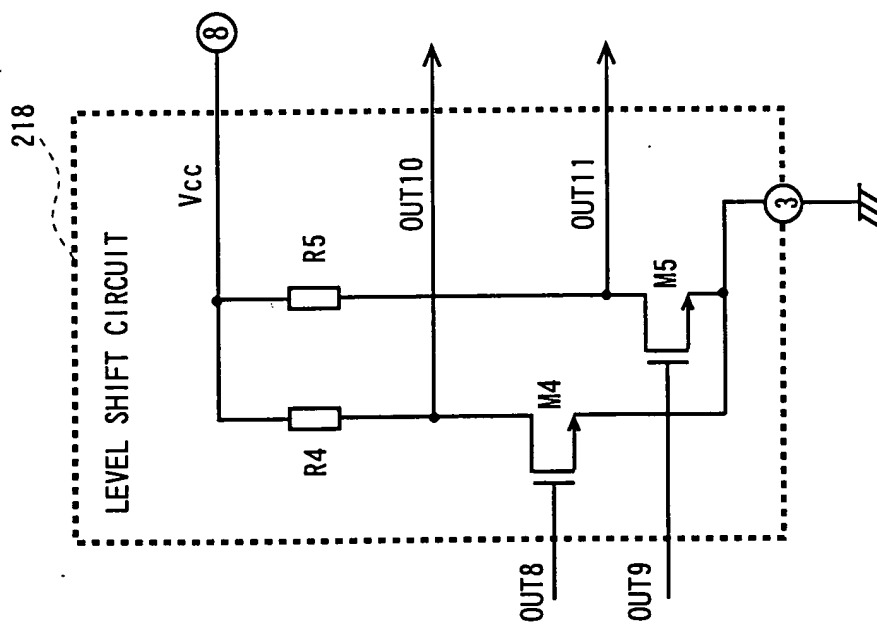


FIG. 20

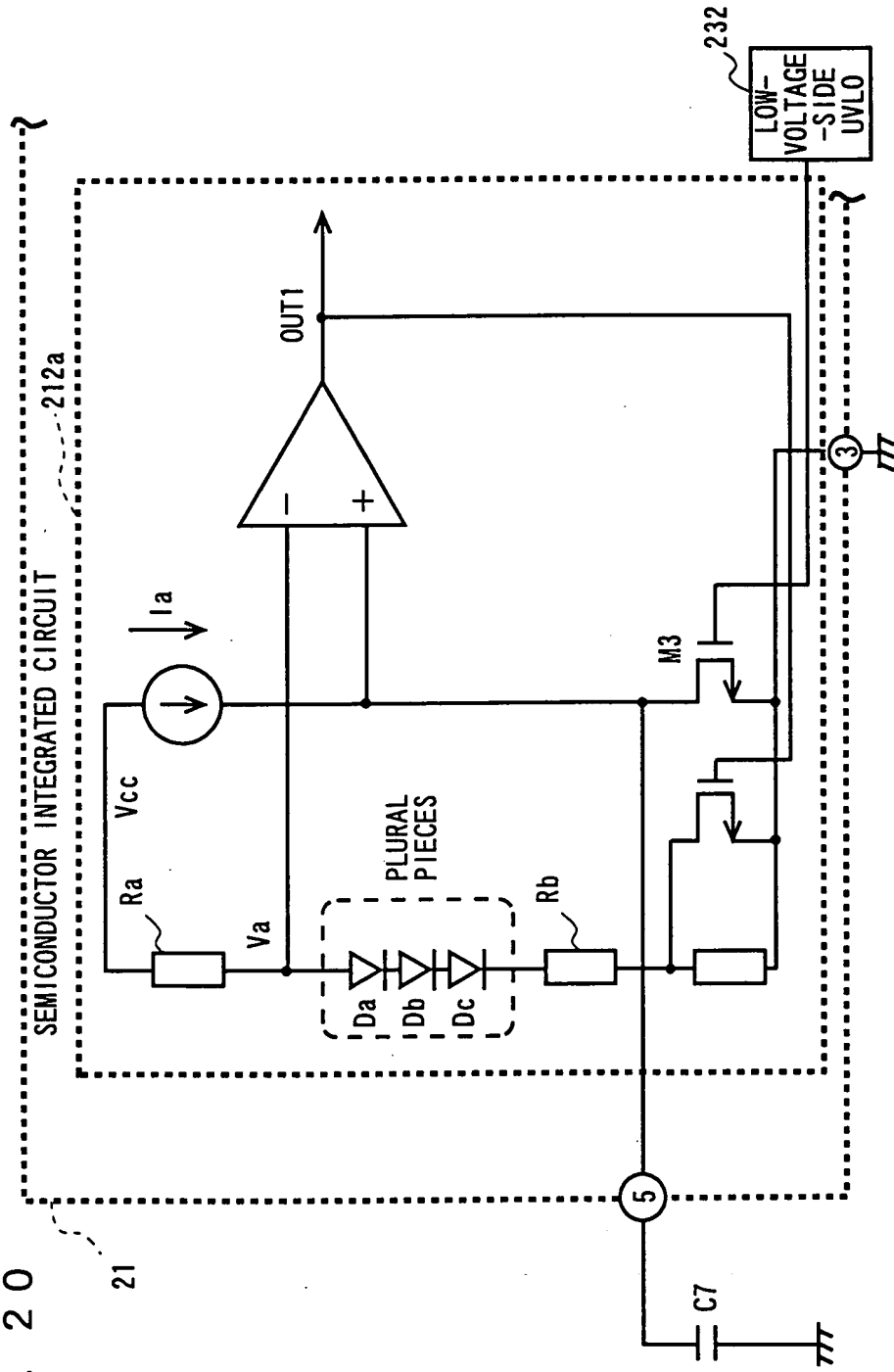
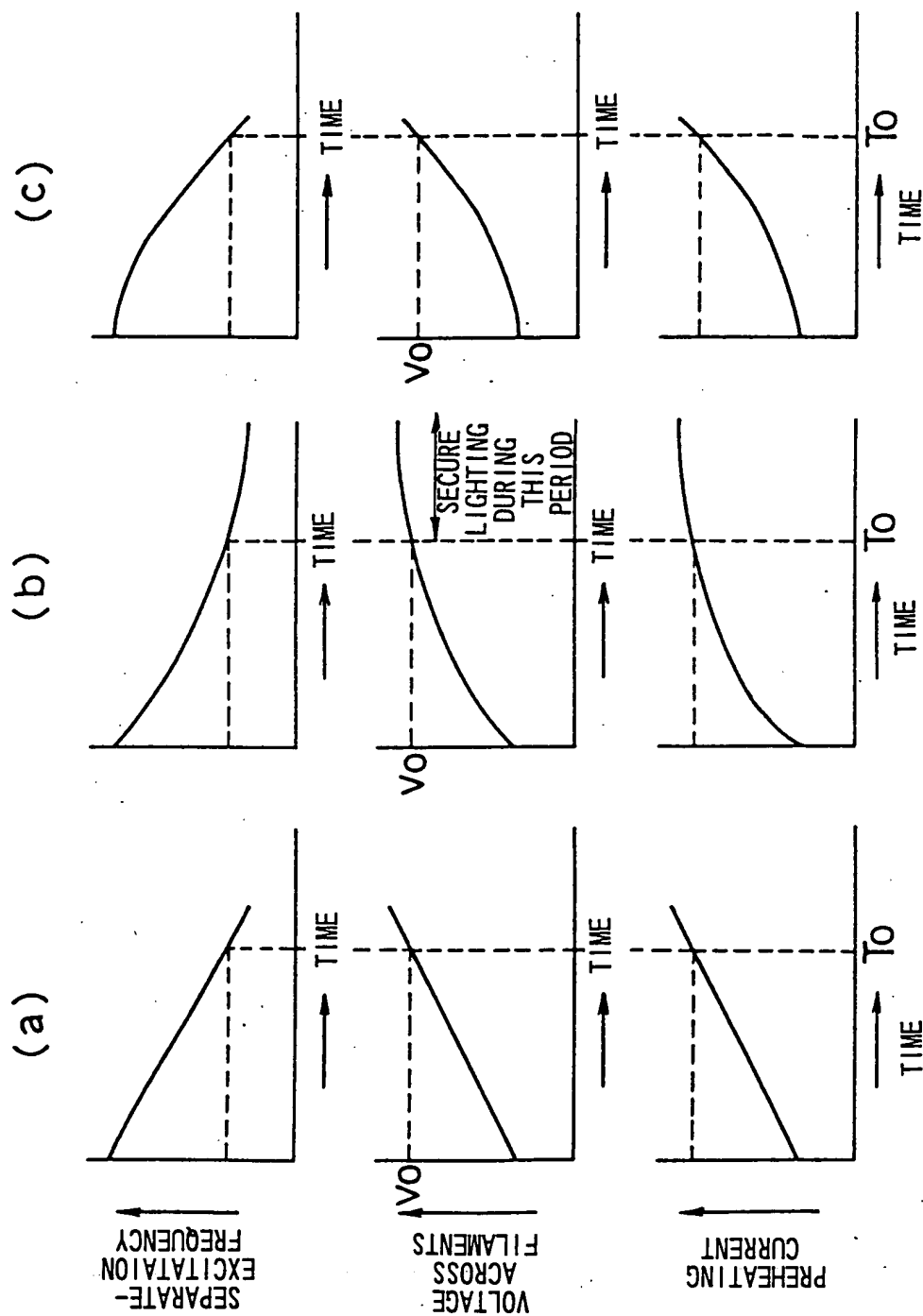


FIG. 21



* T_o - TIME UNTIL LIGHTING
 V_o - LIGHTING VOLTAGE

FIG. 22

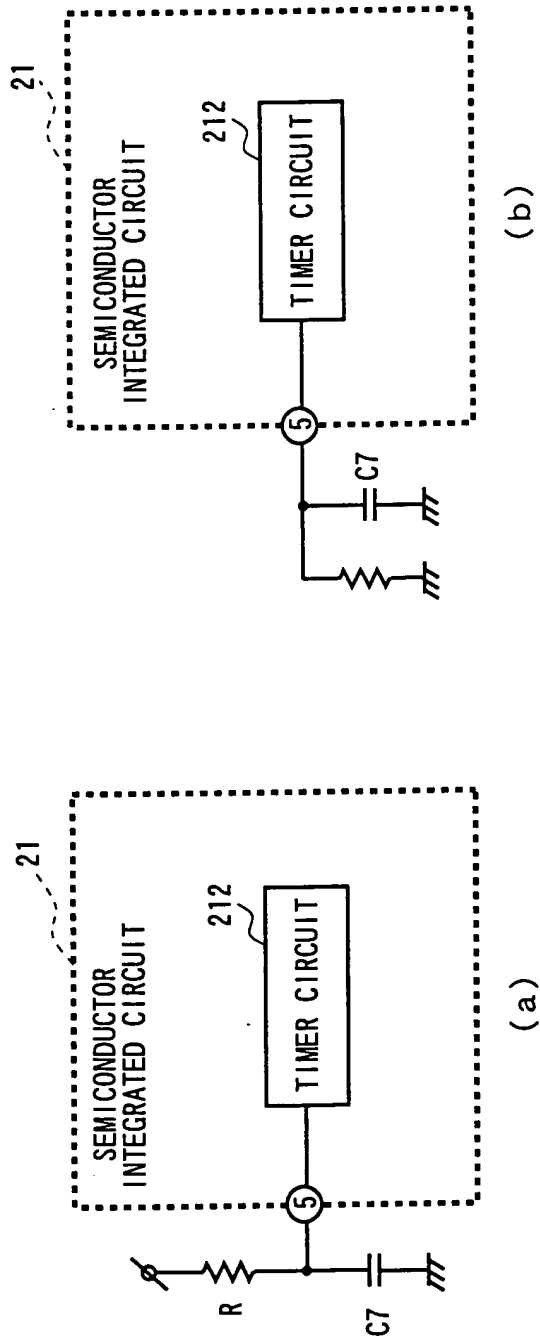


FIG. 23

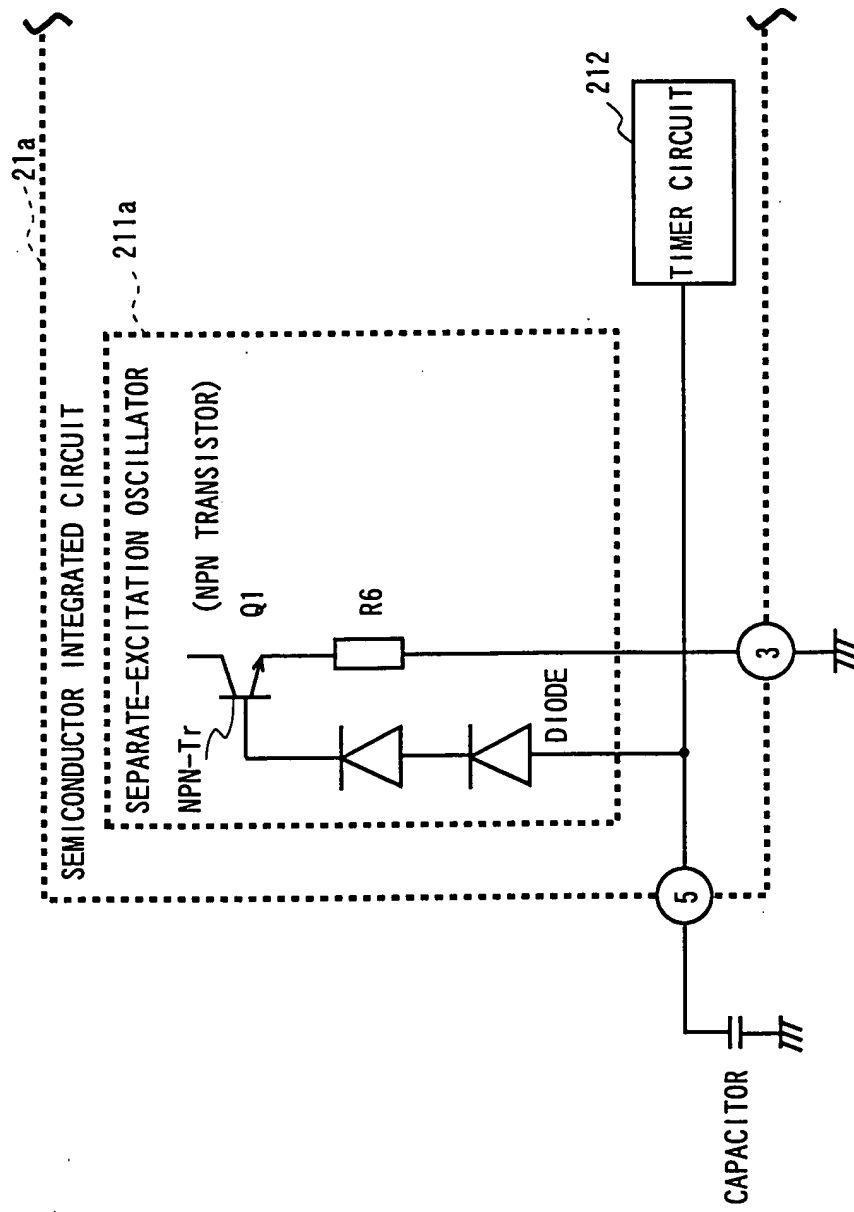


FIG. 24

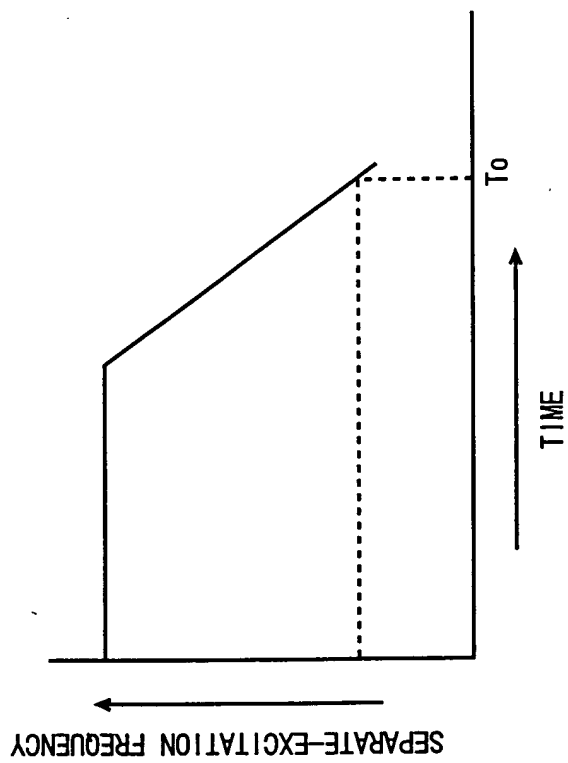


FIG. 25

211b

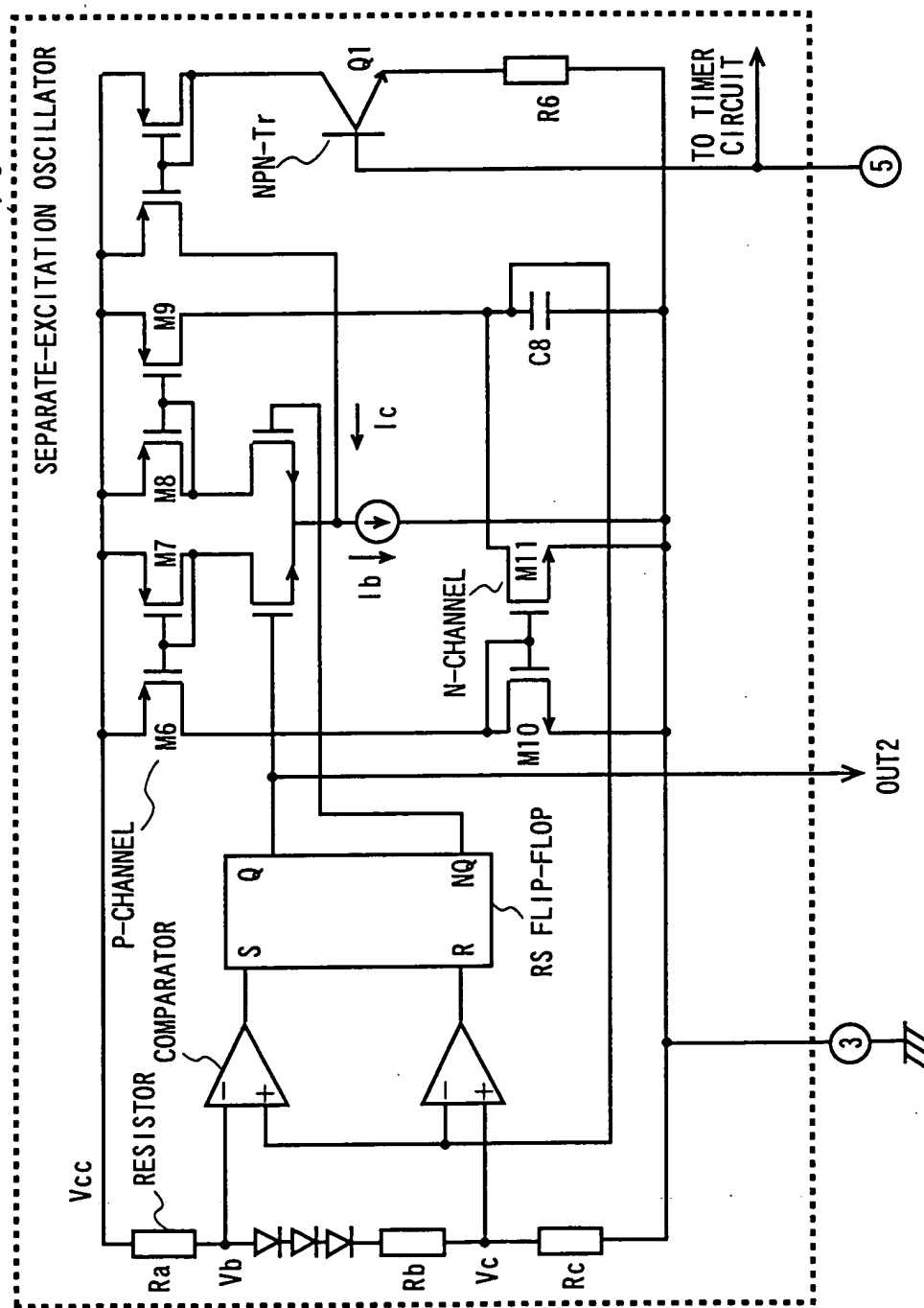


FIG. 26

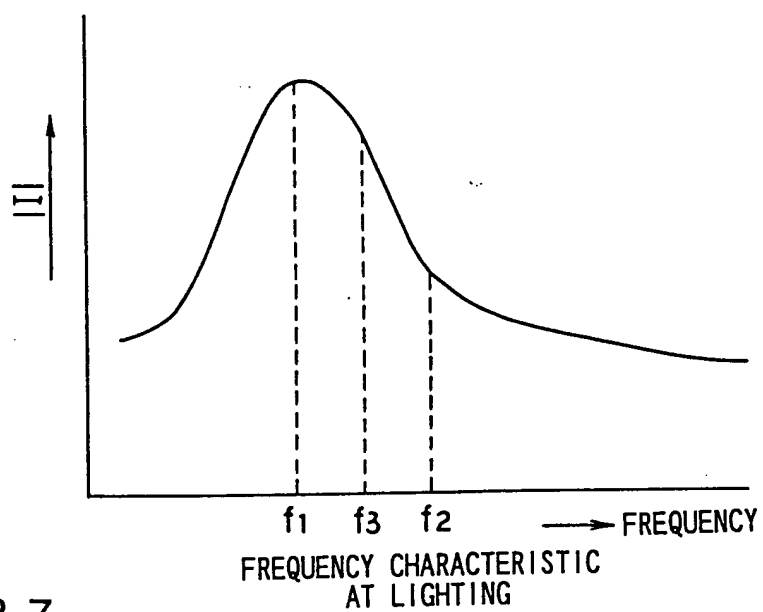


FIG. 27

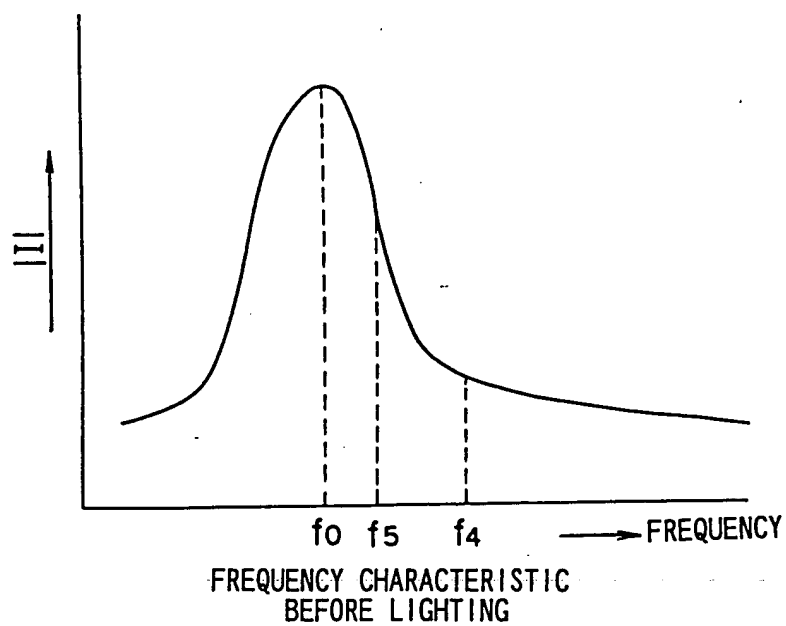


FIG. 28

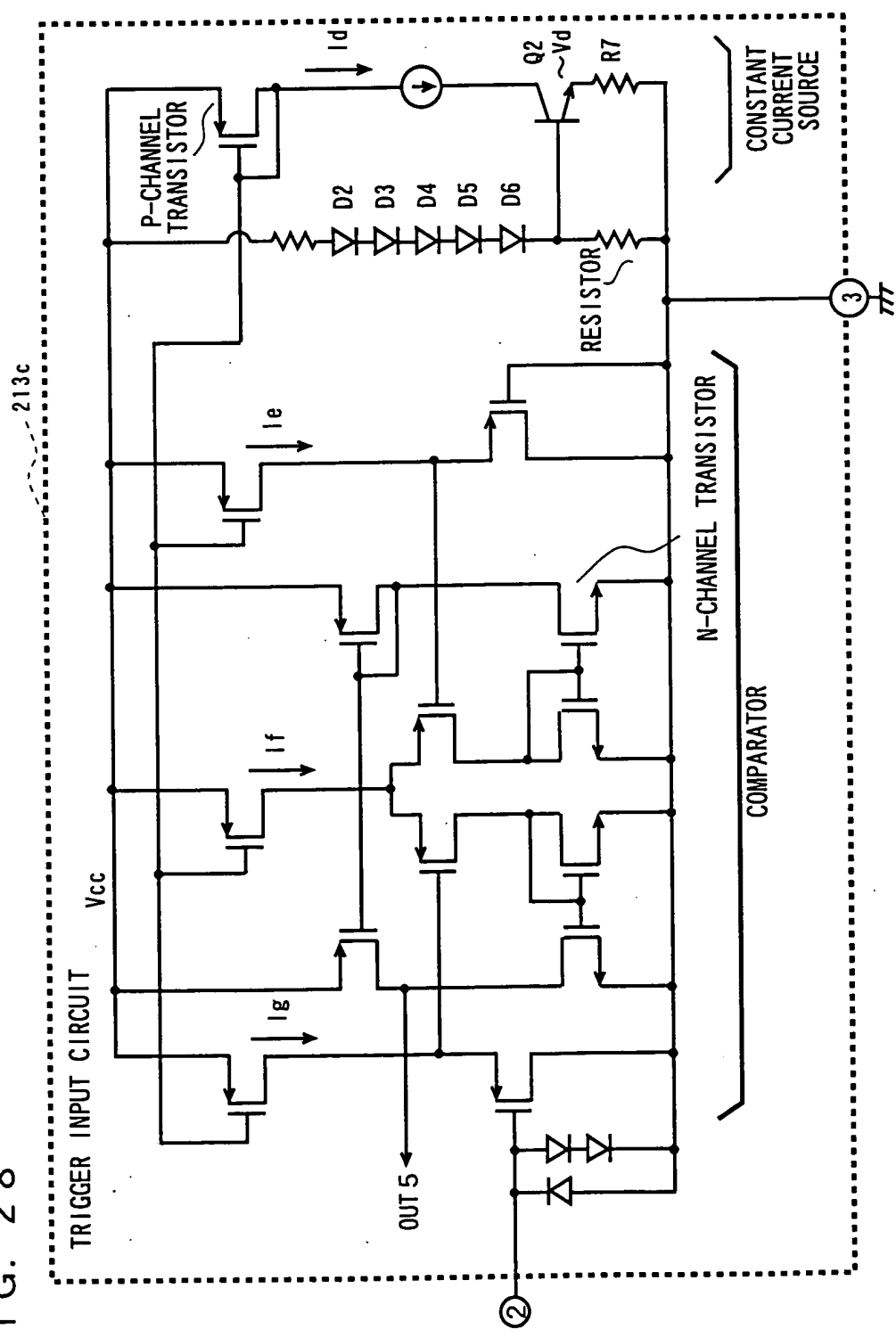


FIG. 29

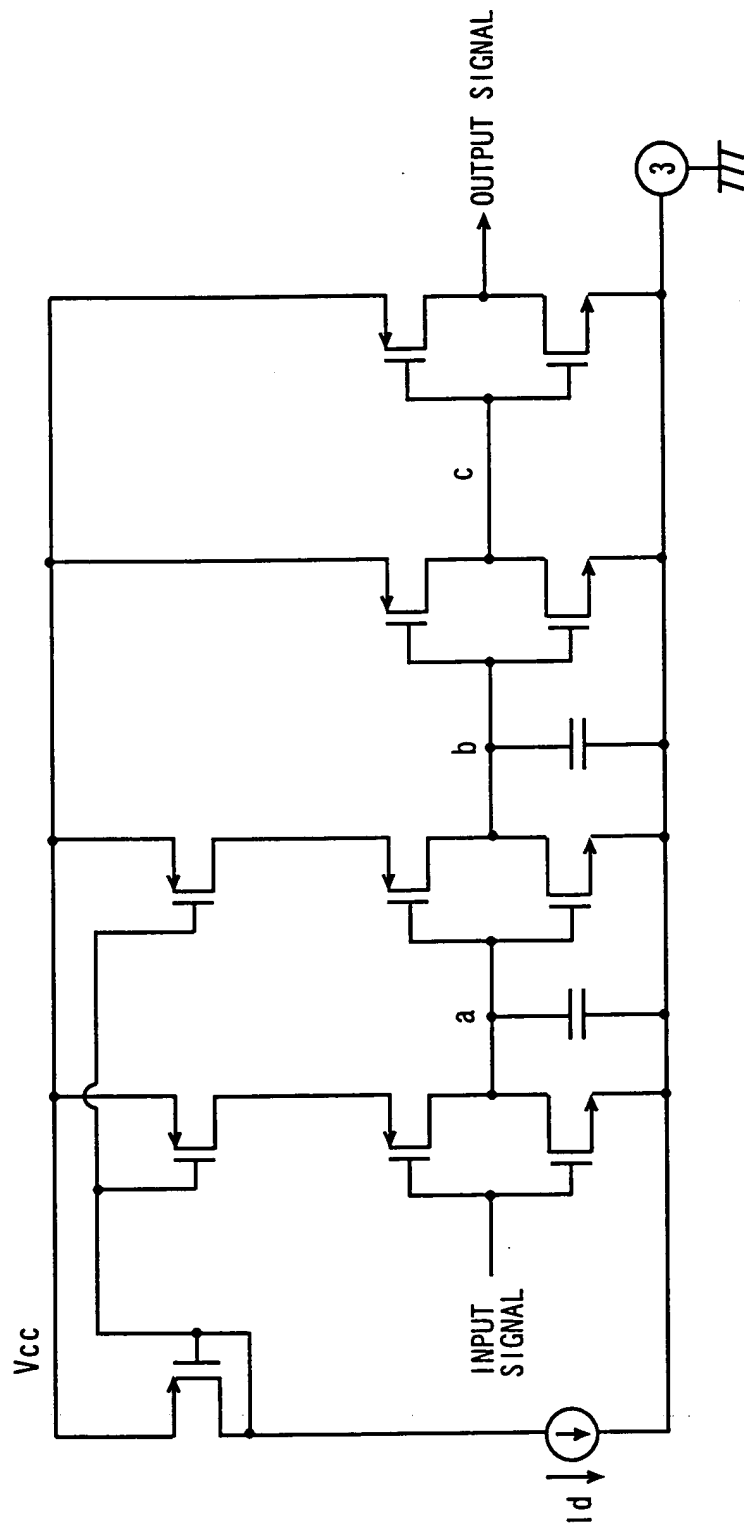


FIG. 30

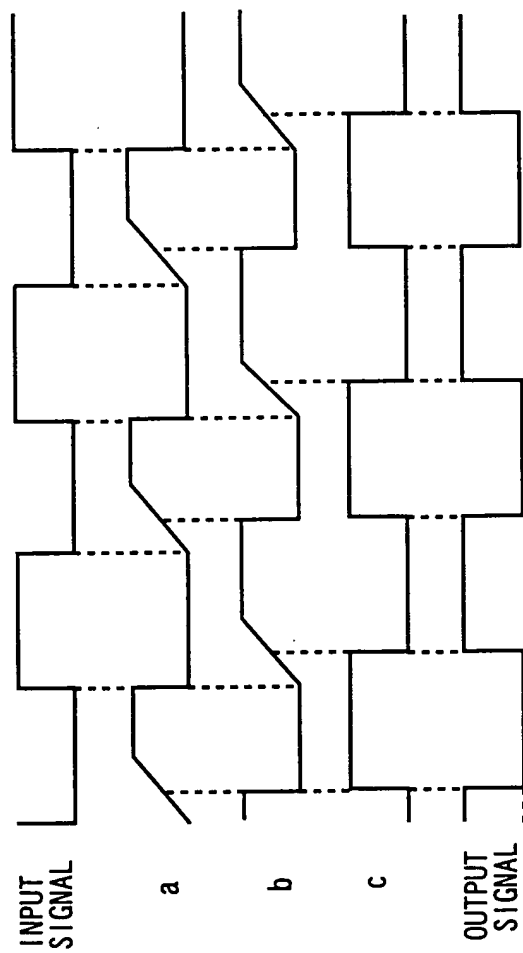


FIG. 31

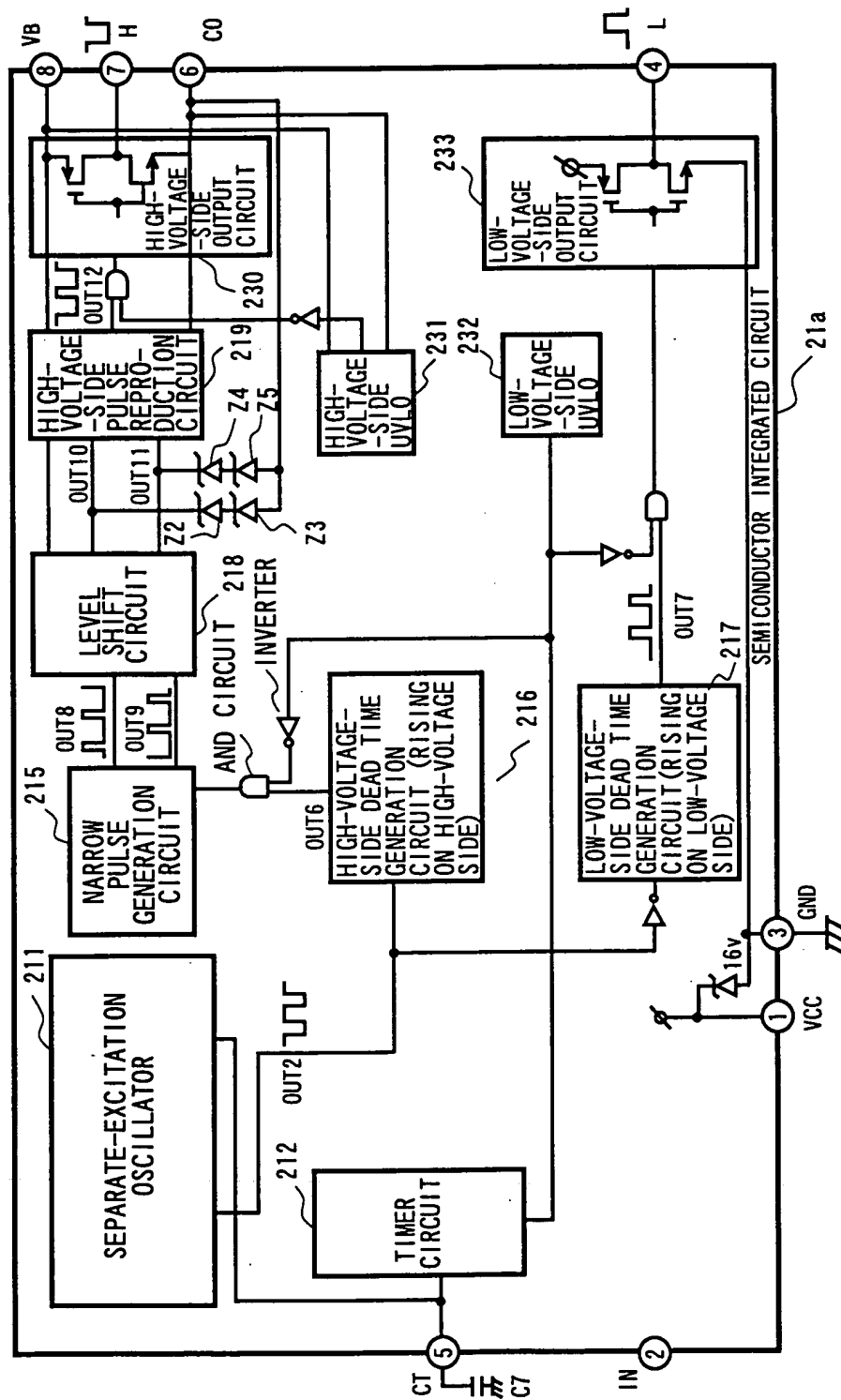
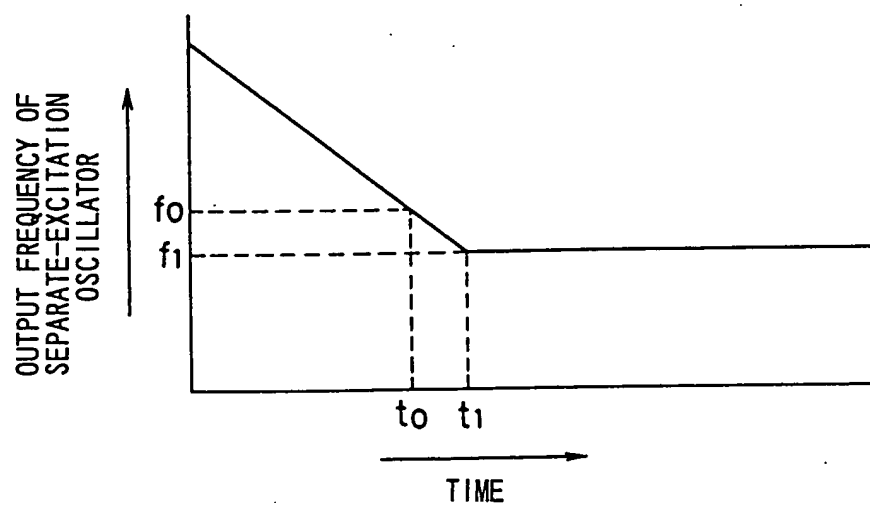


FIG. 32



**-EMITTING
TUBE**

FIG. 34

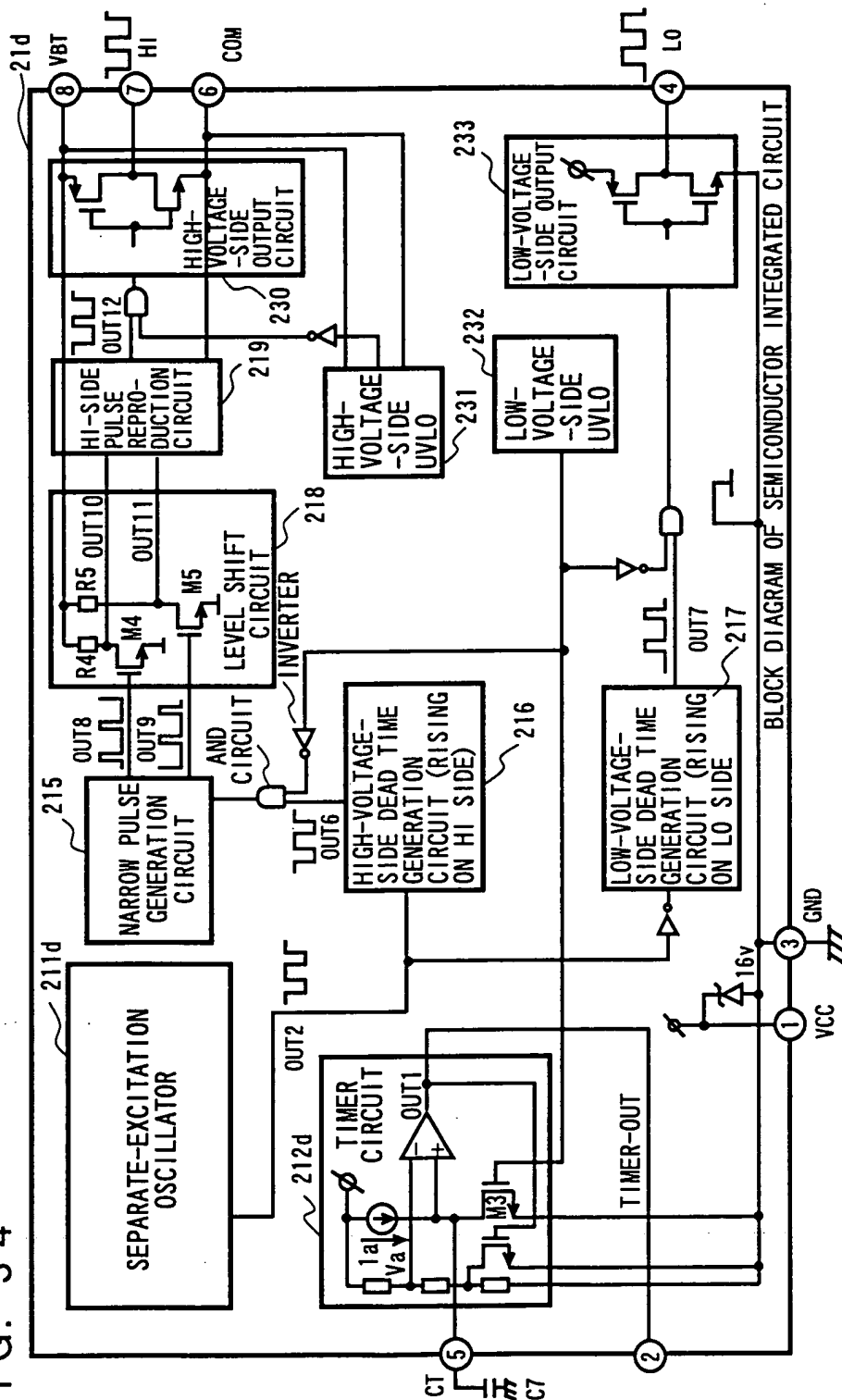


FIG. 35

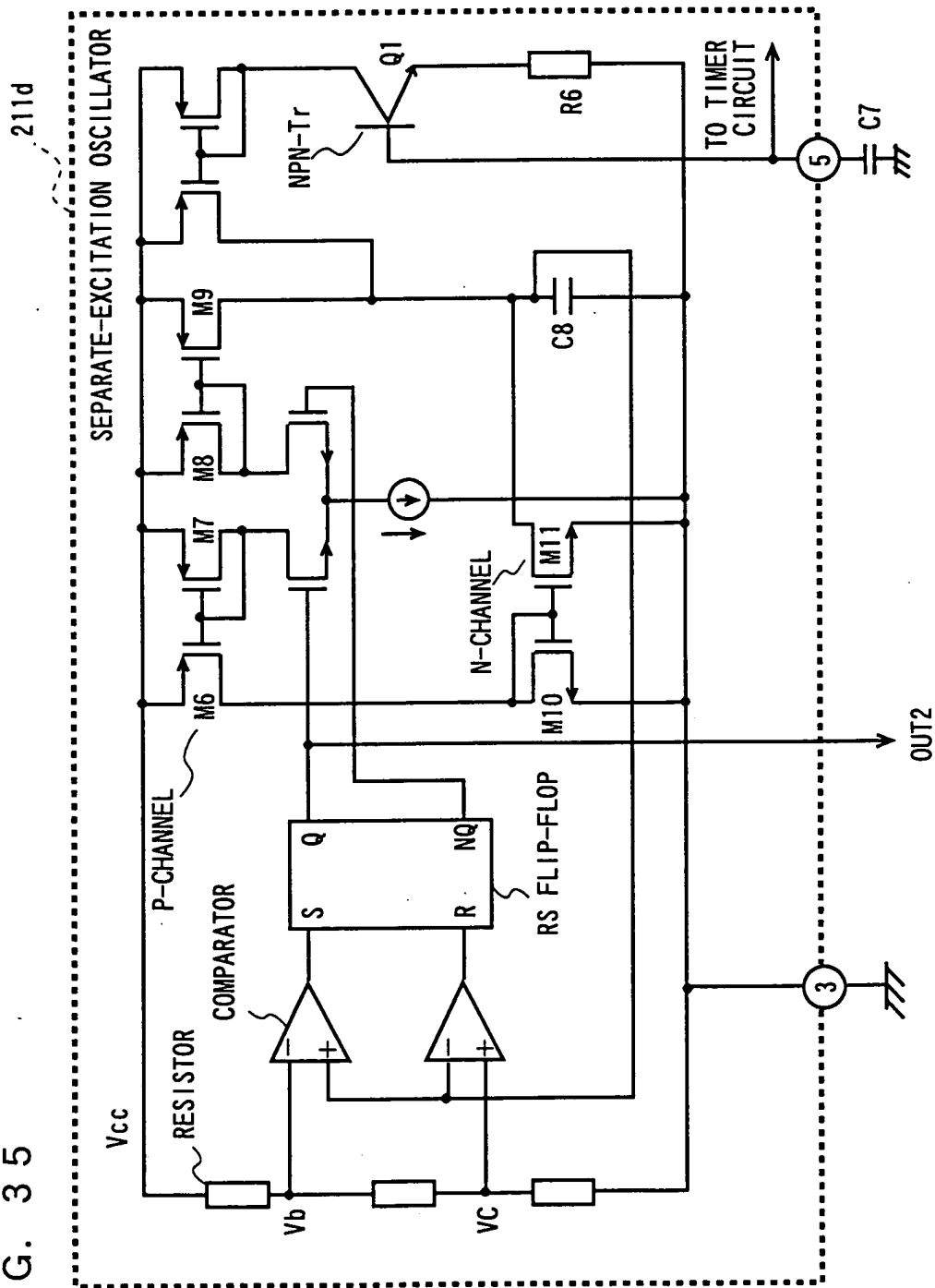


FIG. 36

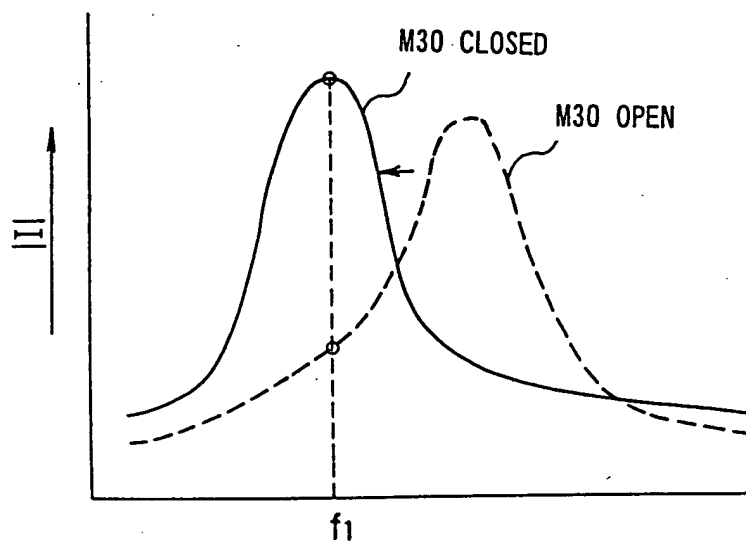


FIG. 37

211e

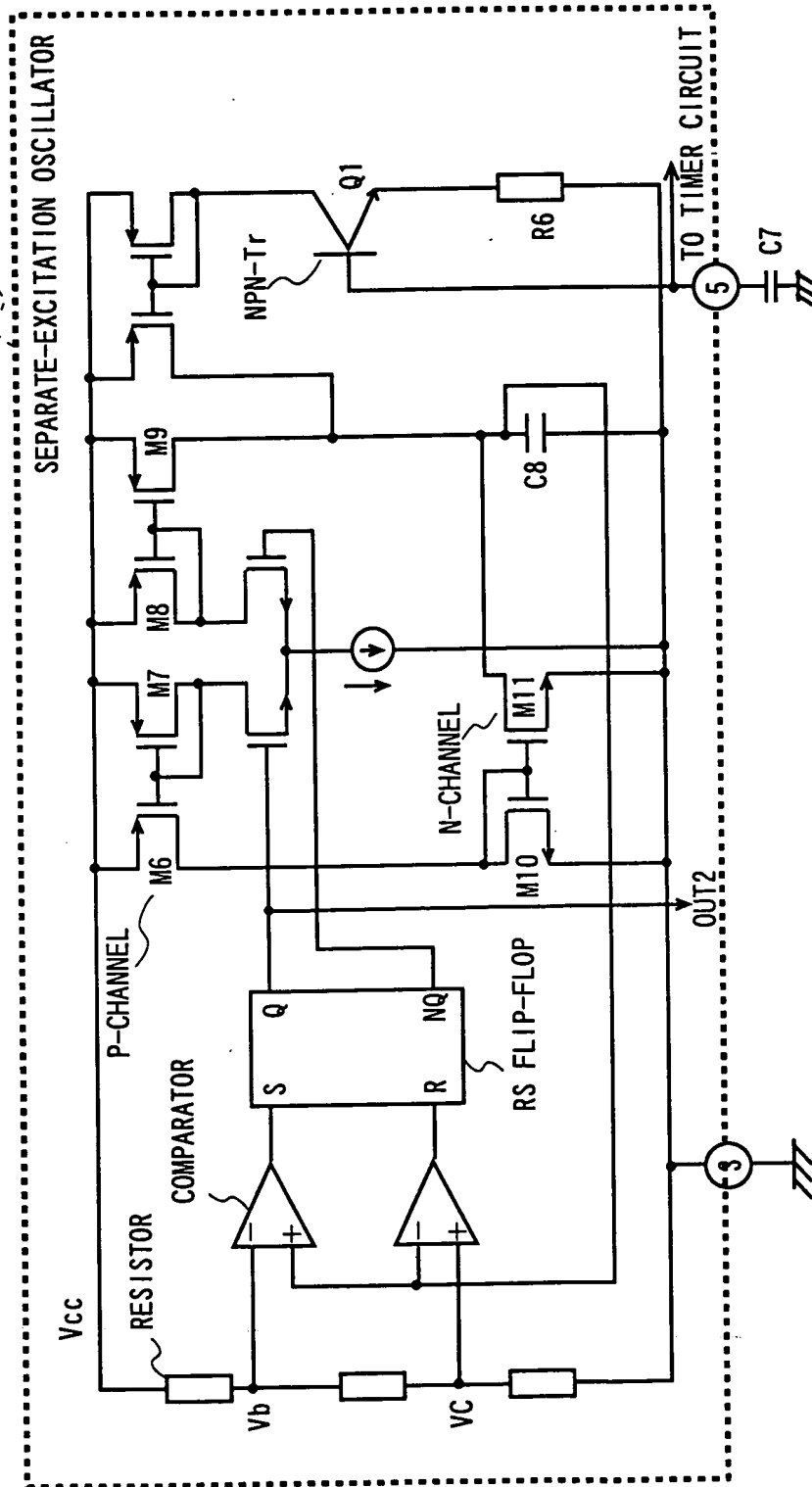
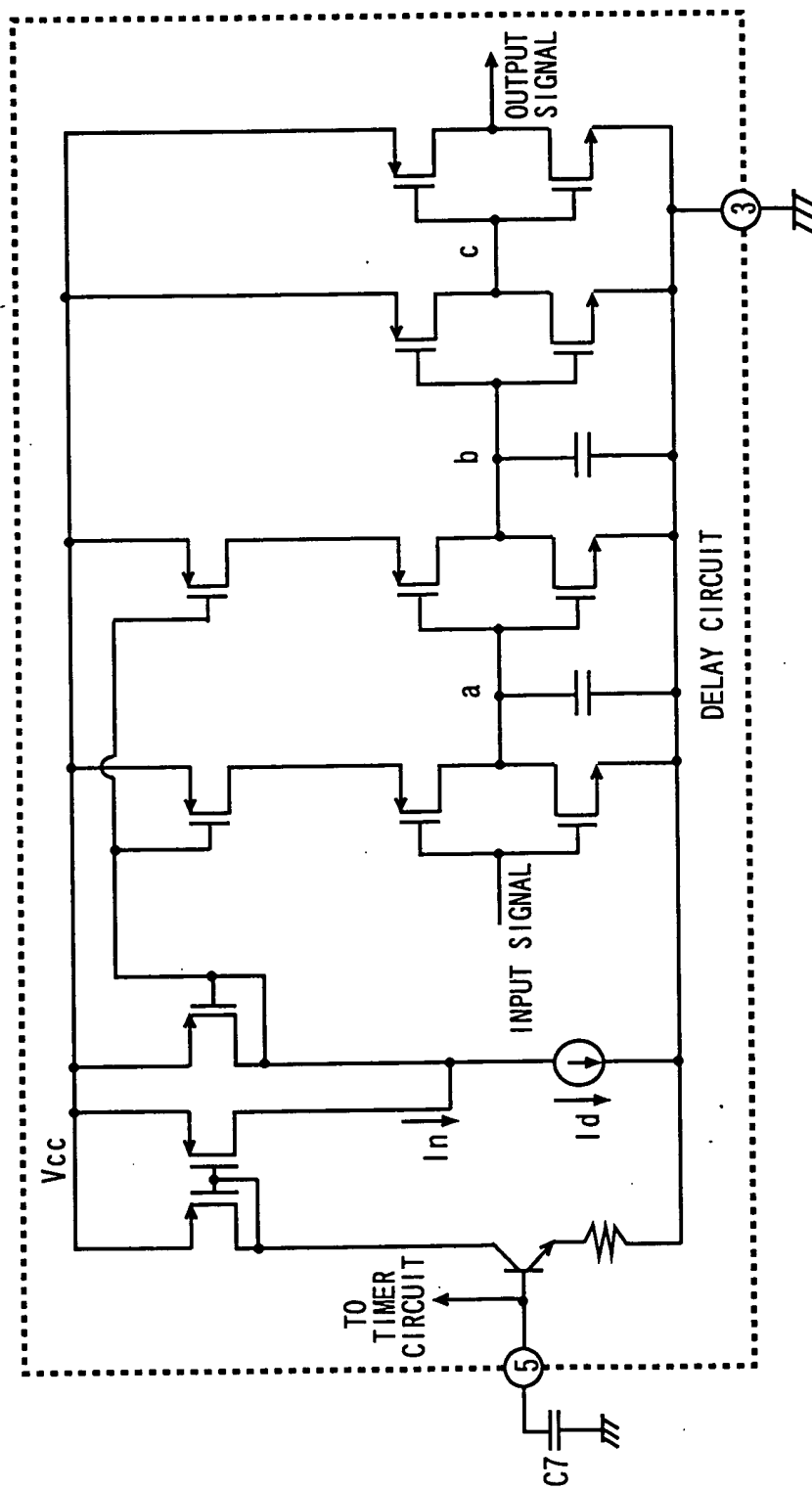


FIG. 38



The schematic diagram is divided into three functional sections by dashed lines:

- DC VOLTAGE GENERATION CIRCUIT (Left):**
 - Input: 100V AC (50Hz, 60Hz).
 - Transformer: 100V $\times \sqrt{2} \approx 141V$.
 - Resistor: $R1 = 5.6\Omega$.
 - Capacitor: $C1 = 0.1\mu F$.
 - Rectifier: Bridge rectifier with rectifying diodes (11).
 - Capacitor: $C2 = 33\mu F (160V)$.
 - Output: 100V.
- DRIVE SIGNAL GENERATION CIRCUIT (Middle):**
 - Input: 100V.
 - Resistor: $R2 = 39K\Omega$.
 - Diode: $D1$.
 - Capacitor: $C4 = 0.1\mu F$.
 - Transistor: $M1$.
 - Capacitor: $C5 = 0.1\mu F$.
 - Transistor: $M2$.
 - Capacitor: $C7 = 0.33\mu F$.
 - Resistor: $R3 = 510K\Omega$.
 - Capacitor: $C3 = 1\mu F$.
 - Zener Diode: 15V.
 - Capacitor: $C6 = 5600 pF$.
- DRIVE CONTROL CIRCUIT (Right):**
 - Light-emitting tube (4) with pins 51 and 52.
 - Capacitor: $C6 = 5600 pF$.
 - Inductor: $L1 = 720\mu H$.

SEMI-CONDUCTOR INTEGRATED CIRCUIT (21):

- Pin 1: V_{CC} IN
- Pin 2: IN
- Pin 3: GND
- Pin 4: L
- Pin 5: TIM
- Pin 6: VS
- Pin 7: H
- Pin 8: VB
- Pin 9: (unlabeled)

FIG. 40

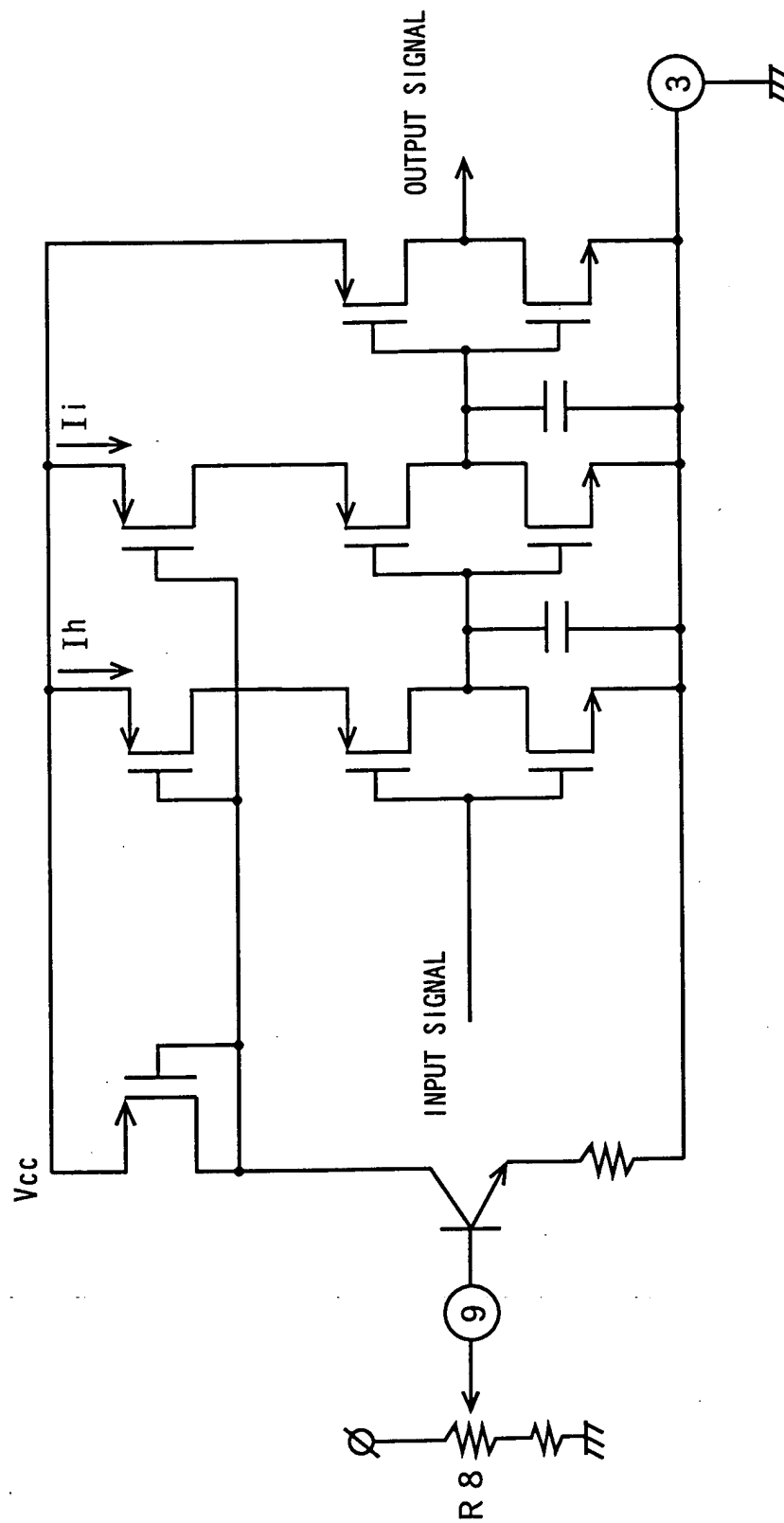
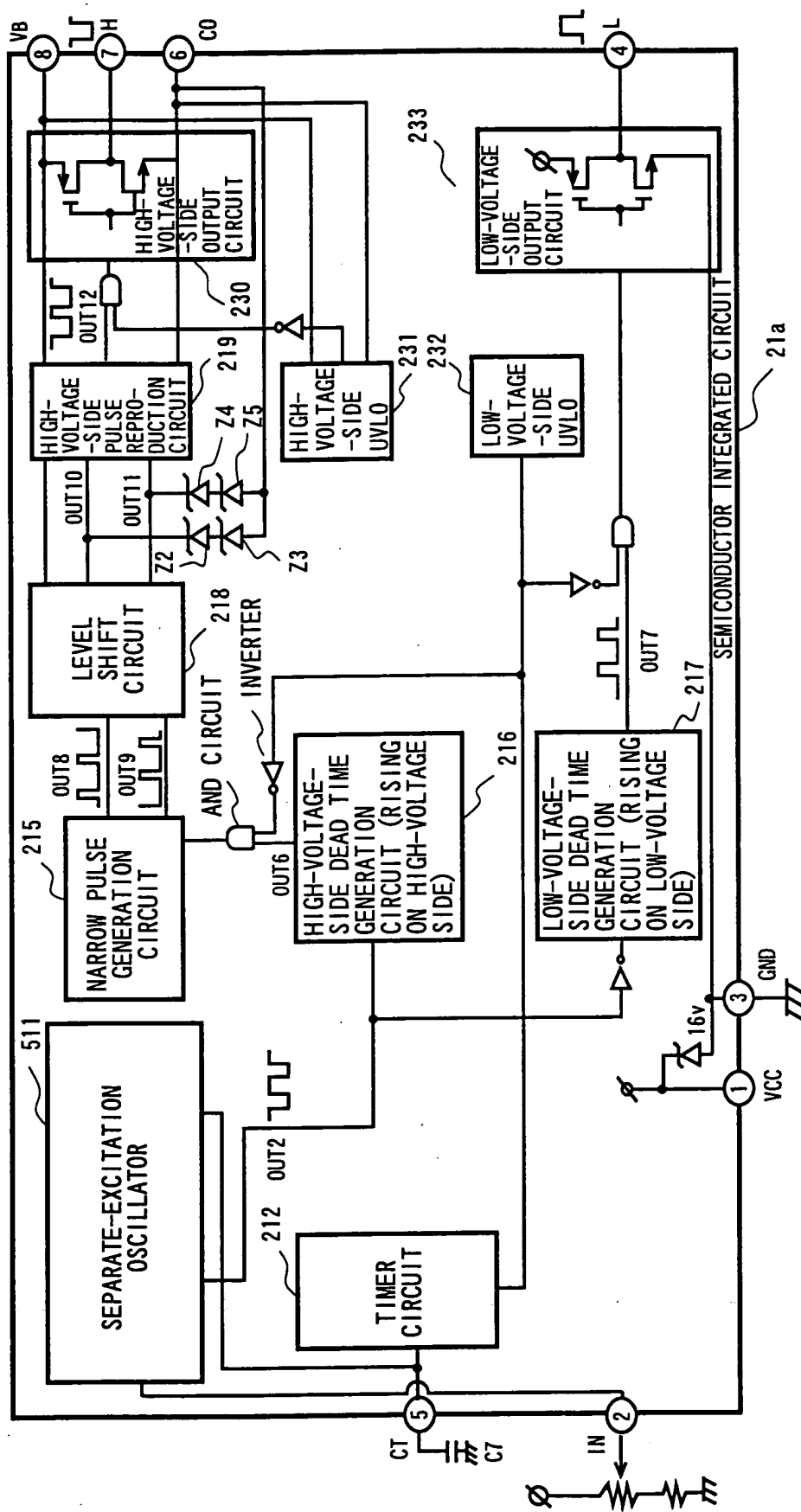


FIG. 41



SEPARATE-EXCITATION OSCILLATOR (100 kHz \sim 75 kHz)

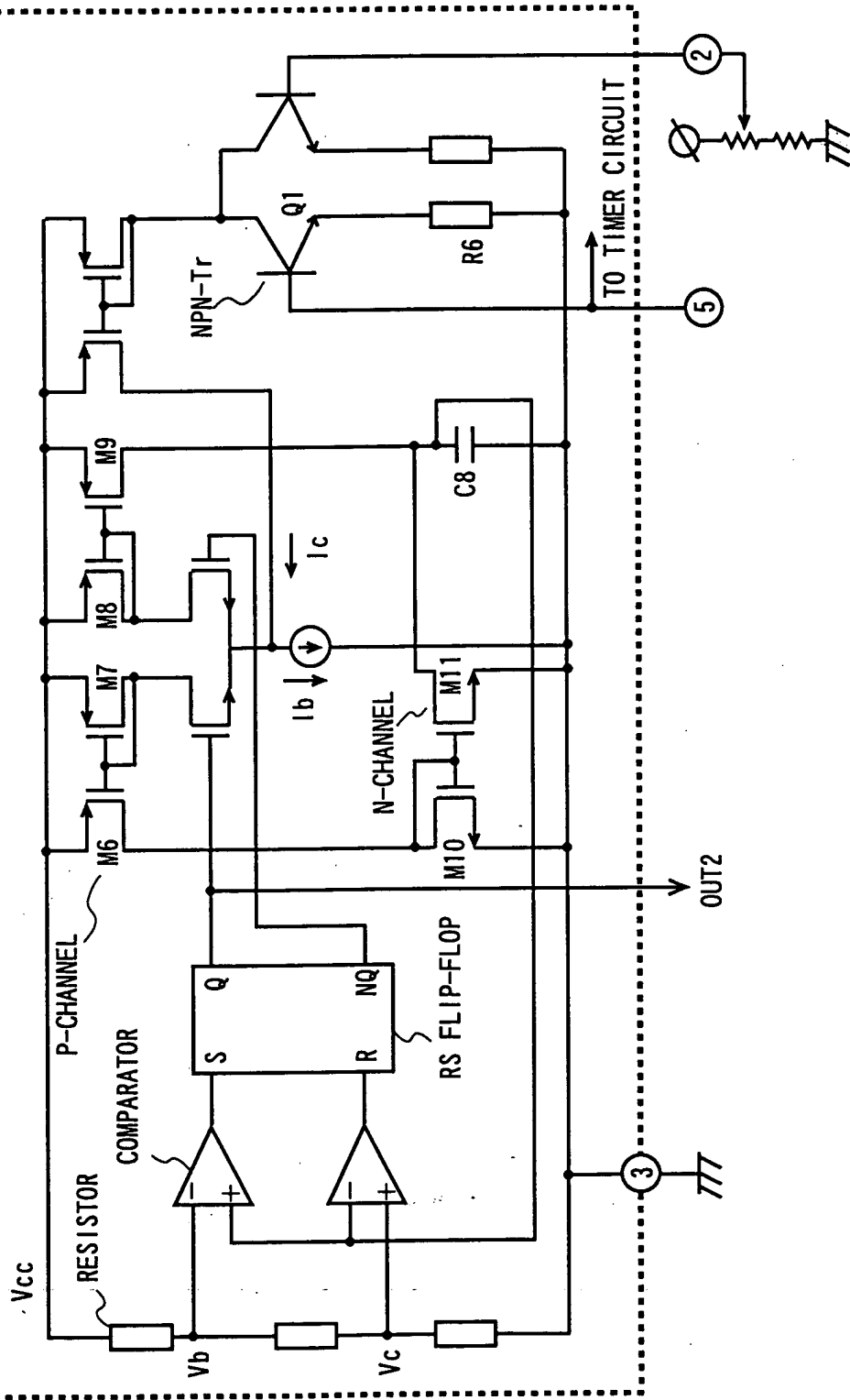


FIG. 43

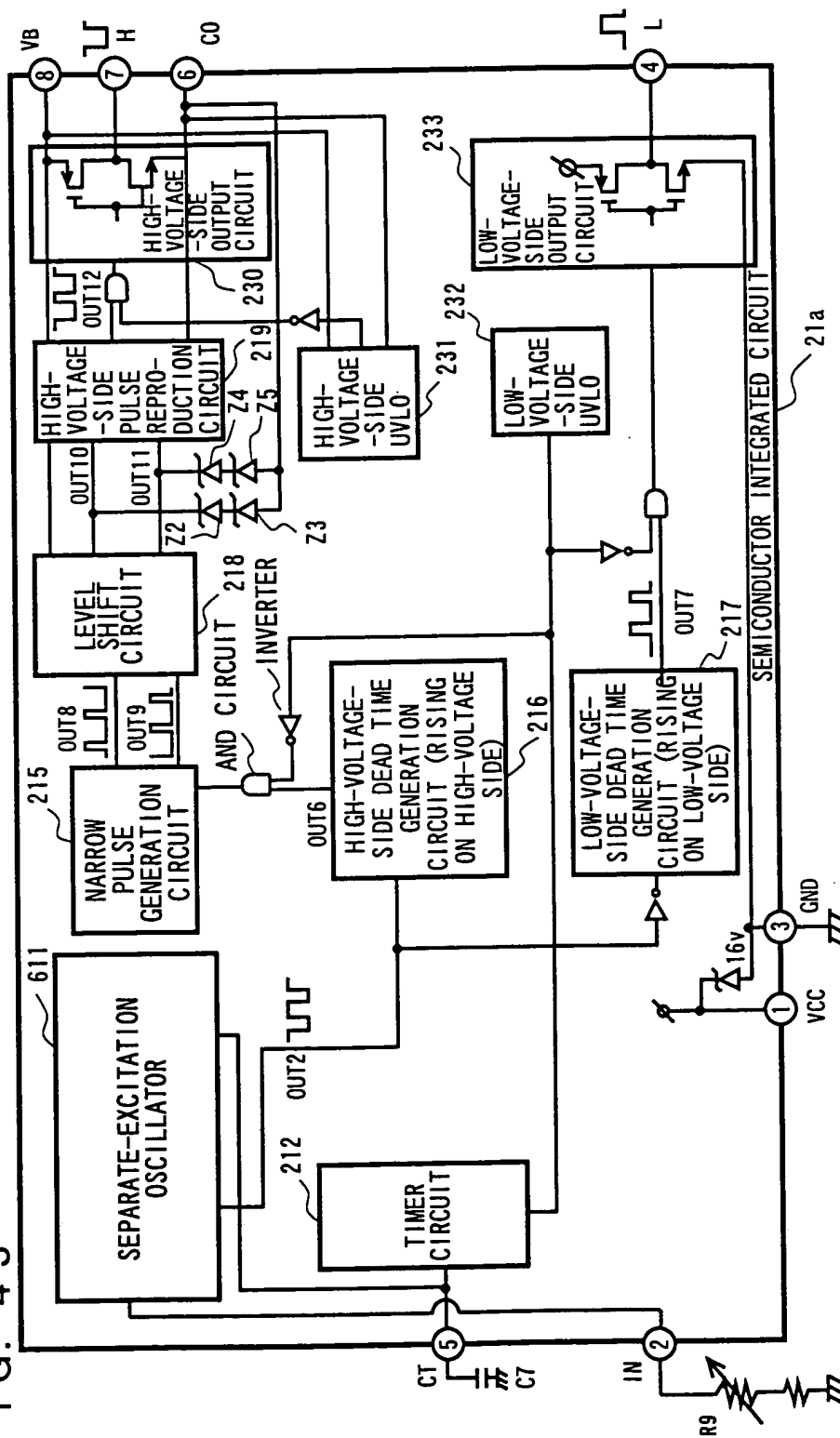


FIG. 44

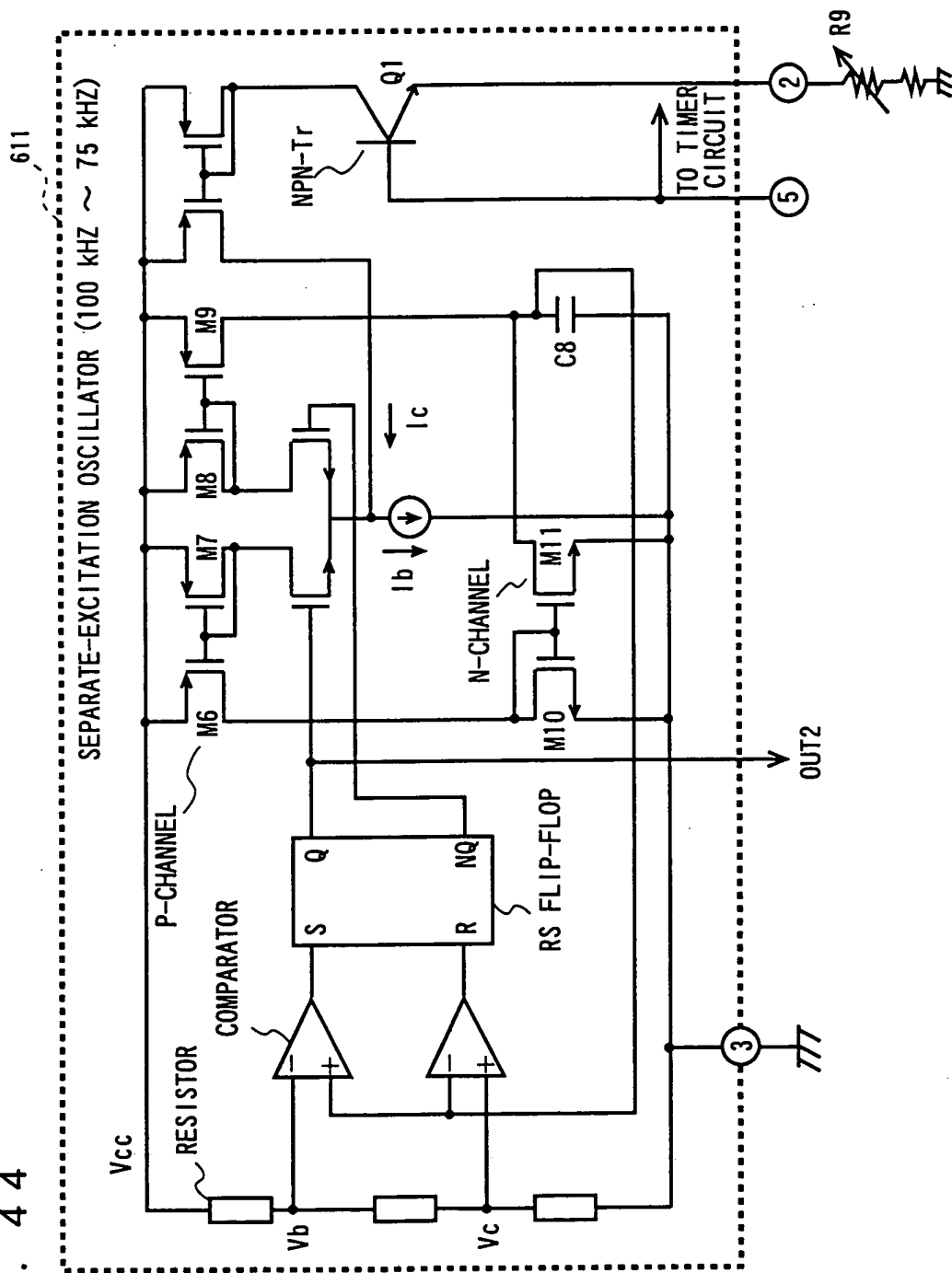


FIG. 45

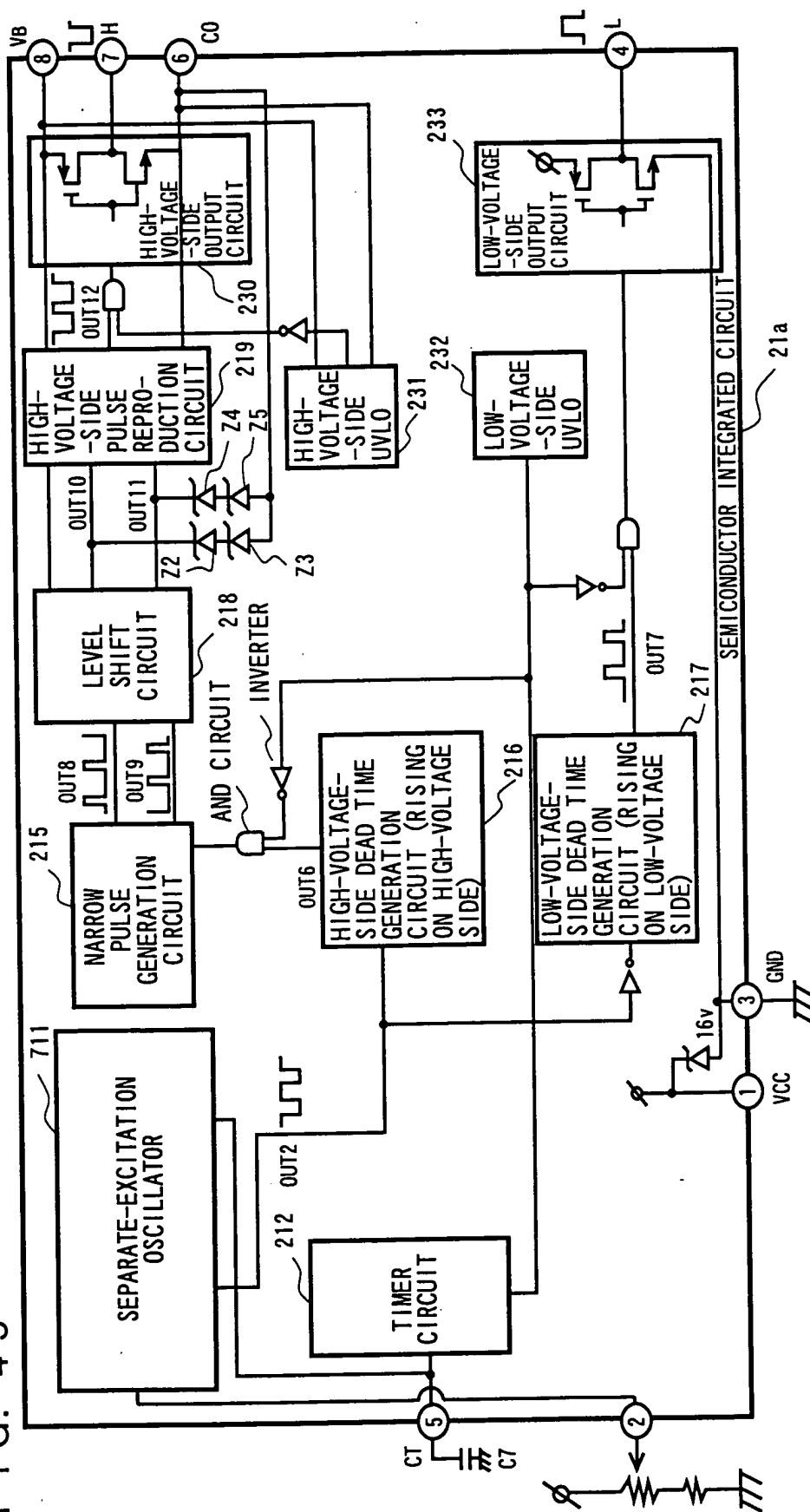


FIG. 46

112

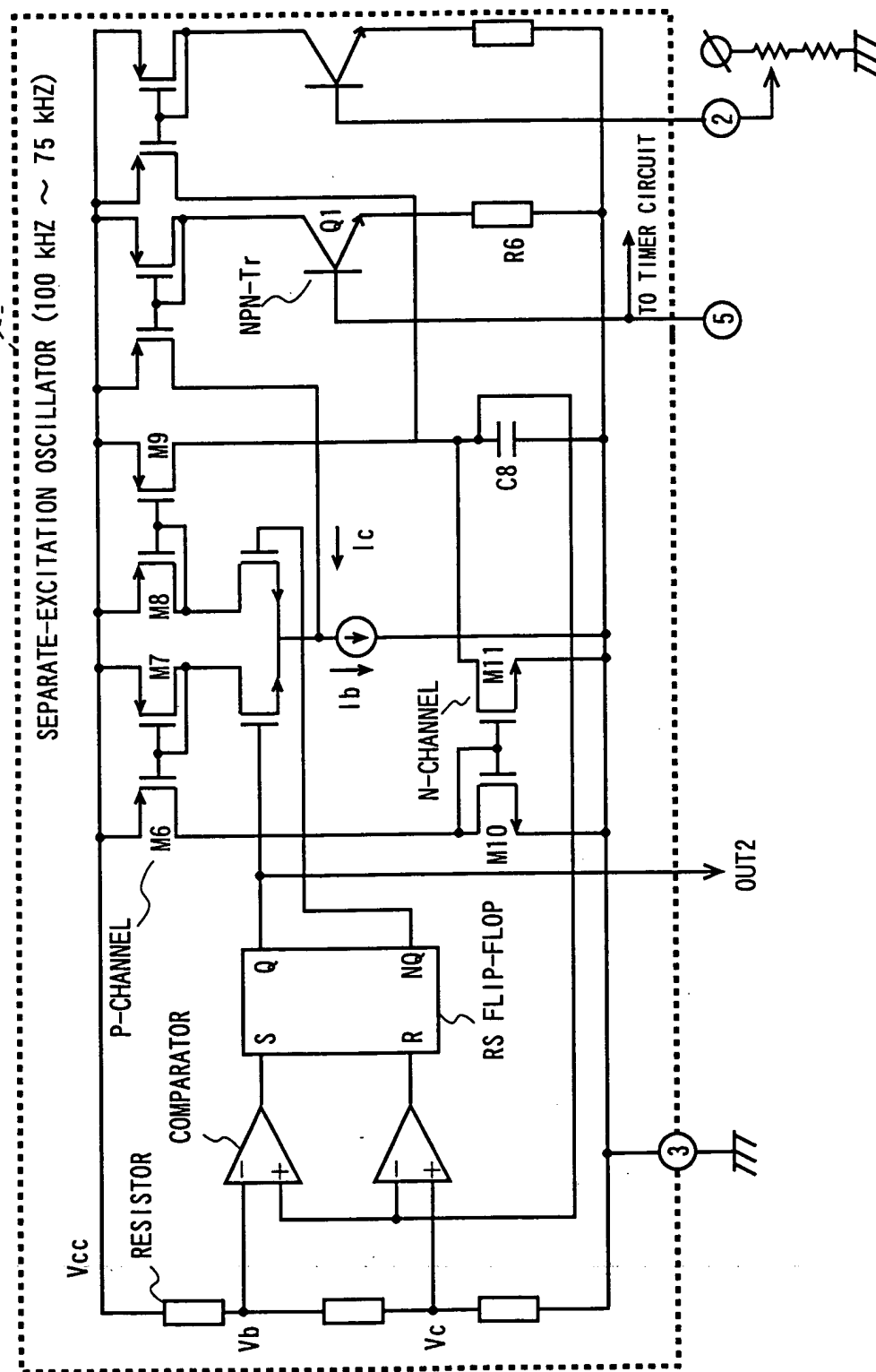


FIG. 47

